



E35 CONVECTION OVEN

SERVICE MANUAL





WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

CONTENTS

This manual is designed to take a more in depth look at the E35 convection oven for the purpose of making the unit more understandable to service people.

There are settings explained in this manual that should never require to be adjusted, but for completeness and those special cases where these settings are required to change, this manual gives a full explanation as to how, and what effects will result.

| SECTION | PAGE NO. |
|------------------------------------|----------|
| 1. SPECIFICATIONS..... | 5 |
| 2. INSTALLATION | 8 |
| 3. OPERATION | 10 |
| 3.1 Description of Controls | |
| 3.2 Explanation of Control System | |
| 4. MAINTENANCE | 15 |
| 4.1 Cleaning | |
| 4.2 Routine Procedures | |
| 5. TROUBLE SHOOTING GUIDE..... | 17 |
| 6. SERVICE PROCEDURES | 20 |
| 6.2 Access | |
| 6.3 Replacement | |
| 6.4 Adjustment / Calibration | |
| 7. ELECTRICAL SCHEMATICS | 36 |
| 8. ELECTRICAL WIRING DIAGRAMS..... | 39 |
| 9. SPARE PARTS | 42 |
| 10. ACCESSORIES / OPTIONS | 45 |

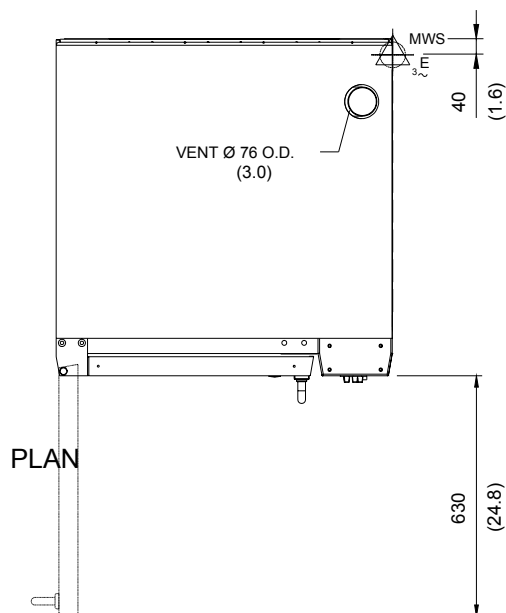
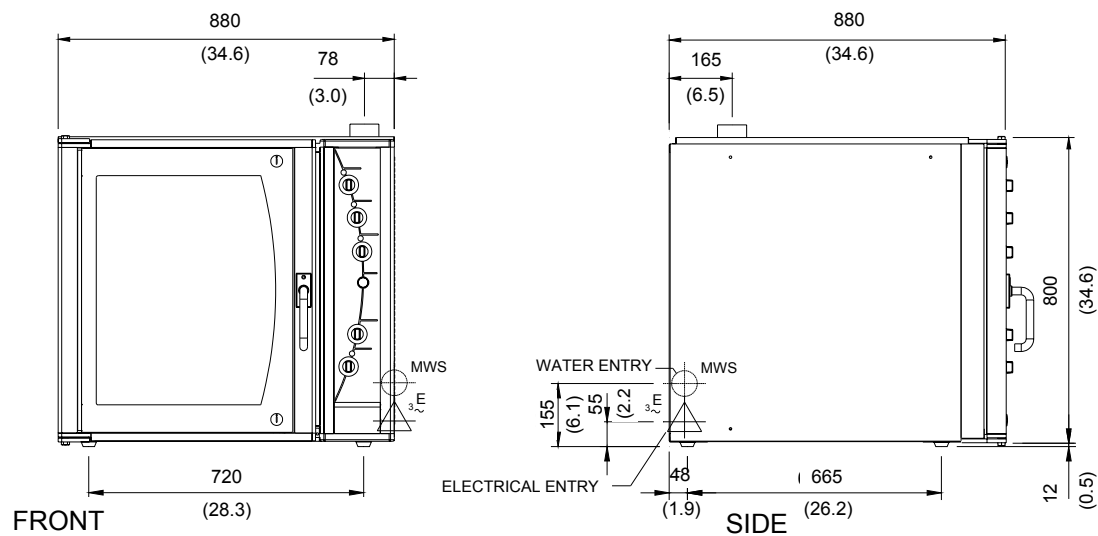


IMPORTANT: MAKING ALTERATIONS MAY VOID WARRANTIES AND APPROVALS.

| | |
|---|---------------|
| PARTS DIAGRAMS | 46 |
| 11.1 Main Assembly | |
| 11.2 Control Panel Assembly | |
| 11.3 Gear Plate Assembly | |
| 11.4 Door Assembly | |
| SERVICE CONTACTS | 60 |
| APPENDIX A. STACKING KIT INSTRUCTIONS | 62 |
| APPENDIX B. STAND MOUNTING INSTRUCTIONS | 65 |
| APPENDIX C. MOTOR CONTROL AND STEAM TIMER ADJUSTMENT GUIDE | 66 |

1. SPECIFICATIONS

MODEL: E35-26



LEGEND



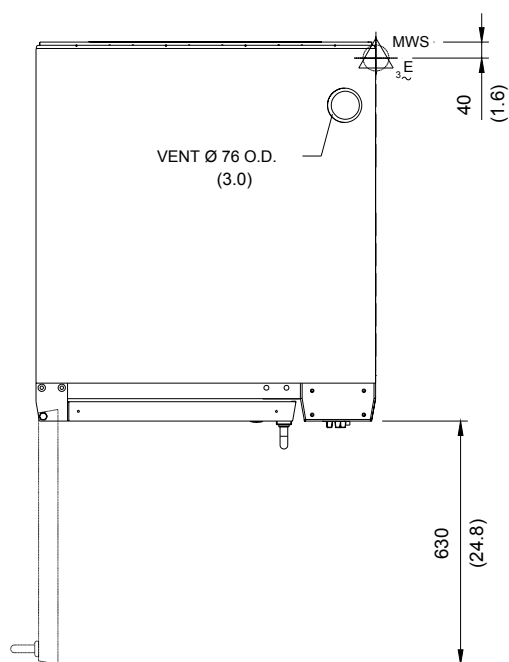
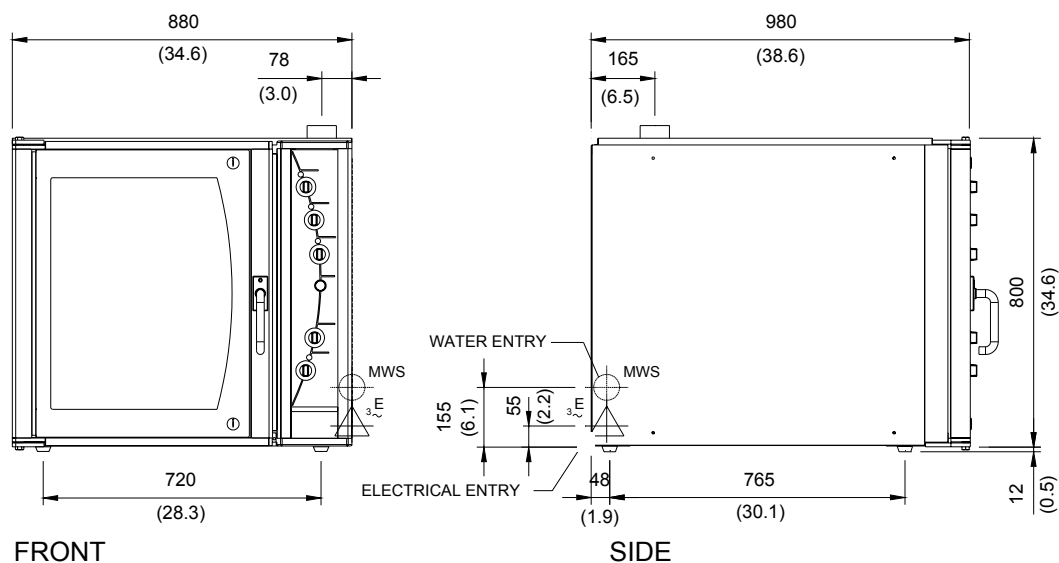
- Electrical connection entry point



- Water entry - 3/4" BSP hose connection

Dimensions shown in millimetres.
 Dimensions in inches shown in brackets.

MODEL: E35-30



LEGEND



- Electrical connection entry point



- Water entry - 3/4" BSP hose connection

Dimensions shown in millimetres.
 Dimensions in inches shown in brackets.

LOCATION

To ensure correct ventilation for the motor and controls the following minimum installation clearances are to be adhered to:

| | |
|-----------------|-------------|
| Rear | 0mm / 0" |
| Left-hand side | 0mm / 0" |
| Right-hand side | 75mm / 3.0" |

WATER SUPPLY CONNECTION

Max Pressure 550 kPa / 5.5 bar / 80 psi

Min Pressure 100 kPa / 1.0 bar / 15 psi

OVEN INTERNAL DIMENSIONS

E35-26

| | |
|-------------|--|
| Width | 465mm / 18 ¹ / ₄ " |
| Height | 685mm / 27" |
| Depth | 760mm / 30" |
| Oven Volume | 0.24m ³ / 8.5ft ³ |

E35-30

| | |
|-------------|--|
| Width | 465mm / 18 ¹ / ₄ " |
| Height | 685mm / 27" |
| Depth | 860mm / 34" |
| Oven Volume | 0.27m ³ / 9.7ft ³ |

OVEN RACK SIZE

| | |
|-------|--|
| Width | 460mm / 18" or 405mm / 16" (Adjustable shelf width) |
| Depth | 660mm / 26" or 760mm / 30" (Based on oven size model) |

OVEN RACK SPACING

| | |
|-------------------|--|
| 6 Tray (standard) | 105 mm / 4 ¹ / ₈ " |
| 8 Tray (option) | 78 mm / 3" |

ELECTRICAL SUPPLY SPECIFICATION OPTIONS

208V, 60Hz, 1P+N+E, 53.7A, 11.2 kW
220V, 50Hz, 1P+N+E, 56.8A, 12.5 kW
220-240V, 60Hz, 1P+N+E, 52.0A, 12.5 kW
230-240V, 50Hz, 1P+N+E, 52.0A, 12.5 kW
208V, 60Hz, 3P+E, 31A/Ph, 11.2 kW
220V, 50Hz, 3P+E, 33A/Ph, 12.5 kW
220-240V, 60Hz, 3P+E, 50.7A/Ph, 12.5 kW
220V, 60Hz, 3P+E, 32.8A/Ph, 12.5kW
380V, 60Hz, 3P+N+E, 18.9A/Ph, 12.5kW
380V, 50Hz, 3P+N+E, 18.9A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 17.4A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 11A/Ph, 8kW

ELECTRICAL CONNECTION WIRE CONDUCTOR SIZES

| | |
|------------|---------------------------------------|
| 1P+N+E/Gnd | 6AWG/10mm ² Copper T75 min |
| 3P+E/Gnd | 10AWG/6mm ² Copper T75 min |
| 3P+N+E/Gnd | 12AWG/4mm ² Copper T75 min |

2. INSTALLATION

 **WARNING:** THIS APPLIANCE MUST BE GROUNDED.

 **WARNING:** ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

It is most important that the oven is installed correctly and that the operation is correct before use. Installation shall comply with local electrical, health and safety requirements.

BEFORE CONNECTION TO POWER SUPPLY

Unpack and check unit for damage and report any damage to the carrier and dealer. Report any deficiencies to your dealer. Fit the feet which are packed inside the oven. Check that the available power supply is correct to that shown on the rating plate located on the right-hand side panel.

208V, 60Hz, 1P+N+E, 53.7A, 11.2 kW
220V, 50Hz, 1P+N+E, 56.8A, 12.5 kW
220-240V, 60Hz, 1P+N+E, 52.0A, 12.5 kW
230-240V, 50Hz, 1P+N+E, 52.0A, 12.5 kW
208V, 60Hz, 3P+E, 31A/Ph, 11.2 kW
220V, 50Hz, 3P+E, 33A/Ph, 12.5 kW
220-240V, 60Hz, 3P+E, 50.7A/Ph, 12.5 kW
220V, 60Hz, 3P+E, 32.8A/Ph, 12.5kW
380V, 60Hz, 3P+N+E, 18.9A/Ph, 12.5kW
380V, 50Hz, 3P+N+E, 18.9A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 17.4A/Ph, 12.5 kW
400-415V, 50Hz, 3P+N+E, 11A/Ph, 8kW

LOCATION

To ensure correct ventilation for the motor and controls the following minimum installation clearances are to be adhered to:

| | |
|-----------------|-------------|
| Rear | 0mm / 0" |
| Left-hand side | 0mm / 0" |
| Right-hand side | 75mm / 3.0" |

Position the oven in its allocated working position. Use a spirit level to ensure the oven is level from side to side and front to back. (If this is not carried out, uneven cooking could occur). The feet/legs used with bench or floor mounting or provided with stands are adjustable and will require adjusting in levelling the unit. It should be positioned so the operating panel and oven shelves are easily reachable for loading and unloading.

 **IMPORTANT:** THE OVEN VENT LOCATED ON THE CABINET TOP MUST NEVER BE OBSTRUCTED.

Bench Mounting

For bench mounted applications the oven must be fitted with 100mm / 4inch feet.

Floor Mounting

For floor mounted applications the oven must be fitted with 150mm / 6 inch legs.

Note: Four 100mm/4 inch or 150mm/6 inch adjustable legs are available separately from your E35 dealer as an optional extra.

Stand Mounting

Ovens that are to be mounted on stands do not require feet or legs. Refer to Appendix B for stand mounting instructions.


Avoid having heat producing equipment such as fryers or steamers adjacent to the right-hand side of oven.

BEFORE USE

Operate the oven for about 1 hour at 200°C (400°F) to remove any fumes or odours which may be present.

ELECTRICAL CONNECTION

Remove side cover panel to allow access to the terminal block and strain relief cable clamp. The cable can be fitted through the entry grommet and secured from strain by tightening the fitted strain relief bushing. Connect cable to the terminals as marked. Refit cover panel.

 **IMPORTANT:** FIXED WIRING INSTALLATIONS MUST INCLUDE AN ALL-POLE DISCONNECTION SWITCH.

Refer to specifications section for wire connections required, and supply connection conductor sizes.

WATER CONNECTION

A cold water supply should be fitted to the water inlet ($\frac{3}{4}$ " BSP hose connection) which is located on the rear of the right hand side of the unit.

Alternately, a connection elbow and sealing washer is supplied with this unit for direct connection of a $\frac{1}{2}$ " ID hose, which is recommended for easy installation and service.

Connect water supply - Max inlet pressure 80psi / 550kPa.

Turn on water supply to check for leaks.

! IMPORTANT: MAXIMUM INLET WATER PRESSURE IS 550 kPa / 80 psi.

DOUBLE STACKING UNITS

When it is desired to mount an E35 Turbofan oven on an E85 prover, a double stacking kit must be used. Available from your dealer or Turbofan distributor. (see Spare Parts).

When mounting one oven on top of another, a double stacking kit is also required.

For stacking kit assembly instructions, refer to Appendix A.

RACK WIDTH POSITIONS

The E35 models have an adjustable rack width setting. This allows for the racking to be configured for 405mm/16" or 460mm/18" wide baking sheets/pans or racks.

Position the side racks in their innermost position for 16" trays and in their outermost position for 18" trays.

Removal of Side Racks (as illustrated)

- 1) Lift the side rack off the bottom locating pins.
- 2) Move bottom of rack toward centre of oven.
- 3) Lower rack to clear top locating pins, and remove.

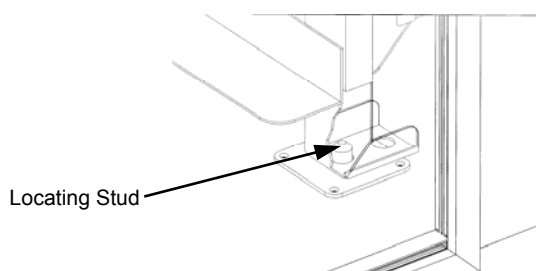


Figure 2.2

Replacement of Side Racks

- 1) Insert rack into the oven, placing the appropriate holes over the top locating pins.
- 2) Lift the side rack over the bottom locating pins.
- 3) Lower rack with appropriate holes over bottom locating pins.

RATING PLATE LOCATION

The rating plate for the E35 convection oven is located at the bottom left corner of the RH side panel. An internal rating plate is also located behind the RH side panel on the vertical dividing panel behind the electrical contactors. (Units manufactured from July 2002).

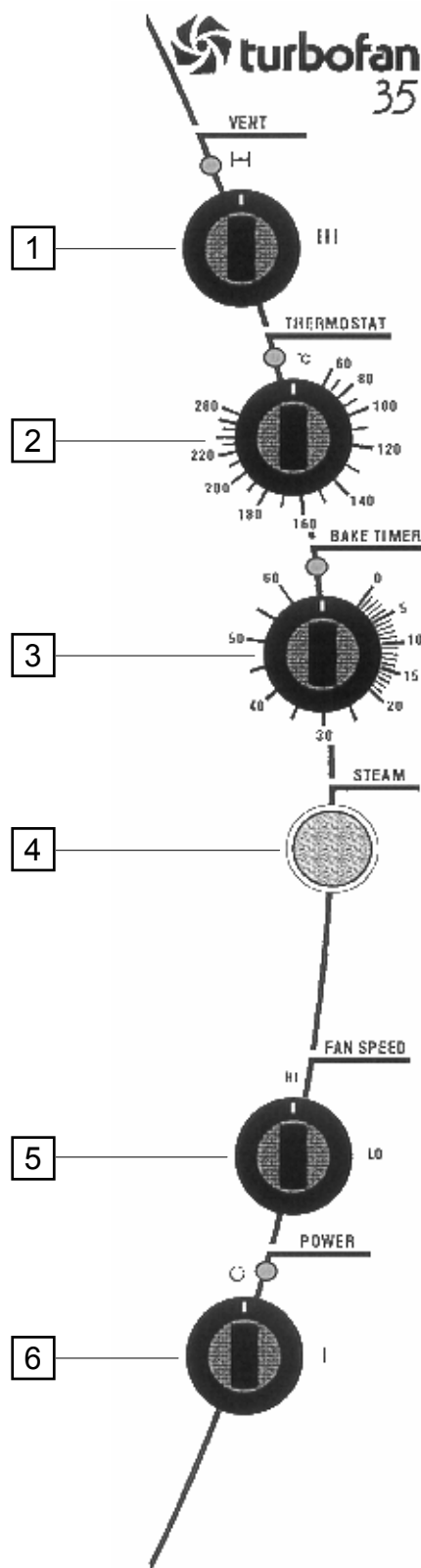


Figure 2.3

3. OPERATION

NOTE: A full user's operation manual is supplied with the product and can be used for further referencing of installation, operation and service.

3.1 DESCRIPTION OF CONTROLS



1. VENT

I Oven vent closed (incorporates over-pressure relief when closed).

III Oven vent open (light illuminates).

2. THERMOSTAT

Temperature range 60 - 280°C / 100 - 550°F.

(Light illuminates when elements are cycling ON to maintain set temperature).

3. TIMER

1 Hour bake timer.

(Light illuminates when "time up" (0) reached, and buzzer sounds).

4. STEAM BUTTON

Push button to activate automatic steam dose into oven chamber.

(Light illuminates when button activated for duration of steam cycle).

5. FAN SPEED

HI Full fan speed (Star point connection on motor).

LO Half fan speed (Delta point connection on motor).

6. POWER

O UNIT IS OFF

I UNIT IS ON (Light illuminates when switched to this position).

Oven lights operate continuously.

Fan starts after 10 seconds when door closed.

3.2 EXPLANATION OF CONTROL SYSTEM

The E35 Turbofan convection oven features multi-function operator controls, and a combined fan motor and steam control system.

A correct understanding of their operation is required before carrying out any service or fault repair work. The control device functions are explained as follows:

Circuit Protection

All models are fitted with a 3 pole circuit breaker, from which a control circuit is taken from L1 circuit breaker, and this control circuit is fitted with a 6A circuit breaker. The 3 pole main circuit breakers are rated 25A/pole for 3P+N+E/GND and 1P+N+E/GND supply models, and 40A/pole for 3P+E/GND (no neutral) models. These provide control circuit protection via the 6A circuit breaker, and load circuit protection via the 3 pole circuit breakers.

Additionally, the 3 pole circuit breaker is mechanically connected to a Shunt Trip breaker, which in the event of the oven fan motor overheating will trip the 3 pole circuit breakers to isolate power from the unit. The Shunt Trip is directly connected to thermal limit switches in the motor windings, and the supply Neutral (or L3 on 3 phase, no neutral models). A supply from the 6A control circuit breaker is connected to the motor thermal switches. Should any of the motor windings overheat, the thermal switches close and supply power to the Shunt Trip, which in turn trips (triggers) and mechanically trips the 3 pole circuit breaker.

Accordingly, causes of circuit breakers tripping can be ascertained with the above knowledge, and this is covered in more detail in the Fault Diagnosis section.

Power On/Off

A Power switch on the control panel isolates power to the operator controls of the oven. With the power switch OFF all functions of the oven are inoperable.

An integral cooling fan, behind the control panel used to keep the electrical controls of the oven cool, is on continuously whenever the power supply to the oven is on. Switching the oven control panel Power switch off will leave the cooling fan running.

With the Power switch ON (illuminated neon indicator), power is supplied to all operator controls.

Oven Lamps

The two oven lamps (12 volt halogen) are on whenever the Power switch is on. The oven lamps are supplied with 12 volts from an electronic lamp transformer fitted on the oven's control switchgear assembly. The oven lamps are on with the oven door open and closed.

Bake Timer

The 60 minute bake timer is a mechanical timer and can therefore be operated with the oven's power ON or OFF. However only with the oven's power switch On and the oven door closed will the timer turn on the time-up buzzer and time-up indicator neon on the control panel. The buzzer and time-up indicator provide indication that the time setting has run down to zero and at this point will remain on continuously until the 60 minute timer has been manually set back to the Off (vertical) position. The 60 minute timer does not control any other part of the oven's operating system as the timer is independent of the temperature control, heating, fan, or steam system.

Oven Vent

The oven vent is a manual operation by way of the Vent knob on the control panel.

The vent knob directly rotates the vent shaft through 90 degrees to open and close the vent. The vent shaft passes through a rotary switch mounted behind the control panel and this switch is used to switch on or off the Vent indicating neon. In the vent open position the indicator is illuminated. The oven vent restricts venting of the oven when in the closed position, however the vent flap is fitted with a spring loaded over-pressure flap which relieves excess pressure created during oven steaming. This avoids steam pressure escaping out of door seals etc, if the oven is steamed with the vent closed. The spring pressure on the over-pressure vent flap ensures that only excess steam is lost out of the vent.

Door Switch

The oven has a door switch, mechanical micro-switch below oven opening, which breaks the power supply to the oven fan, temperature, and steam control circuits when the door is opened. Additionally, opening the oven door will remove power from the Bake Timer buzzer and indicator, and the vent position indicator neon.

This allows only the oven lights to be operational if the oven door is opened.

Thermostat Control

Heating of the oven is controlled by an electronic thermostat control, comprising of a potentiometer dial and knob on the control panel, a temperature sensing probe (thermistor type) in the oven chamber, and the thermostat control board behind the control panel. Power to the electronic thermostat is supplied through an over-temperature/hi limit thermostat. Accordingly a failure of the electronic thermostat control causing a temperature over-run will result in the over-temperature thermostat switching and removing power from the heating control circuit. The over-temperature thermostat is able to be manually reset, however a serviceman is required to perform this function, as removal of the R/H service panel is required to access this safety protection device.

The electronic thermostat when set to a temperature will illuminate the heating neon indicator on the control panel whenever the oven heating elements are on. When the indicator neon goes out, the oven is up to the set temperature.

Heating / Elements

The electronic thermostat when requiring heating of the oven, switches power to the heating contactor (referred to as C1 contactor in this manual). The heating contactor closes to supply power through to the heating elements in the oven. In all ovens all 3 poles of the contactor are used to supply L1, L2, and L3 phase circuits to the 3 heating elements on each side of the oven fan motor.

On **3 Phase + Neutral supply models**, all 6 elements are looped to neutral, and the 3 Phase power to the elements is to each set of three elements in parallel connection. Hence each of the elements is supplied with the Phase to Neutral voltage.

On **3 Phase supply models (no neutral)**, the set of three elements each of the fan motor are connected in Delta configuration, which each element being supplied the Phase to Phase voltage.

On **1 Phase + Neutral supply models**, all 6 elements are looped to neutral, and the 1 Phase power to the elements is split into three poles at the main circuit breakers on the oven, then feed through the three poles of the heating contactor, from where each pole is connected to two of the six elements in parallel. Hence each of the

elements is supplied with the Phase to Neutral voltage.

The heating elements are rated at 2000 Watts each, therefore providing a total of 12000 Watts or 12kW of heating.

In some cases special heating kilowatts may be supplied to special request, so always check rating plate information on the unit if in doubt.

The heating contactor cycles ON/OFF as controlled by the thermostat to maintain set oven temperature.

Fan / Motor

The E35 Turbofan ovens use a dual speed, bi-directional oven fan circulation system, in order to provide even heat distribution through the oven, and fan speed control to suit different product types.

To provide both dual fan speed and bi-direction, a motor of 4pole/8pole configuration is used.

Fan / Motor Direction

The direction change is made by swapping two phases to the motor through the motor contactors C2 and C3. In one direction L1, L2, and L3 are switched through motor contactor C2 with motor contactor C3 open. In the alternate direction, motor contactor C2 is open, and C3 is closed. L1 and L2 are reversed on the C3 contactor connections. Motor contactors C2 and C3 are mechanically interlocked (interlock fitted to rear of contactors) to prevent any switching overlap.

Motor direction change is automatic, and the duration of the direction cycle is factory set. Additionally, a dwell period between at each change of direction occurs to allow the motor to restart in the opposite direction only after the motor rotation has slowed down. This is necessary to avoid motor overheating due to the high current load that would be required to change direction instantaneously.

Each direction cycle is 90 seconds long, at the beginning of which is a preset 10 second dwell/delay. As the dwell is at the beginning of the cycle, the fan always has a 10 second start delay when the oven is first turned on, or when the door is closed after opening.

The direction control timing is provided from three electronic timers mounted below the motor contactors on the electrical switchgear panel of the oven. Timer T1 controls the direction cycle time, timer T3 controls the dwell for one direction, and timer T5 controls the dwell for the opposite direction.

When the door is closed and power is ON, cycle timer T1 will switch power to dwell timer T3 for 90 seconds. Timer T3 will then switch power through to motor direction contactor C2 after the preset 10 second delay. The motor will then run for the remainder of the 90 second cycle.

At the completion of the 90 second cycle, cycle timer T1 will switch the power from T3 dwell timer to T5 dwell timer. This T3 dwell timer will then switch power through to the other motor direction contactor (refer previous) after the preset 10 second delay, and the motor will run in the opposite direction for the remainder of that 90 second cycle. At the completion of that cycle the cycle timer T1 switches power back to the other dwell timer, and this continues until the oven door is opened, or the power is turned off.

Fan / Motor Speed

For HI speed operation the motor is run as a 4 pole motor. (1420 rpm 50Hz/1750 rpm/60Hz) For LO speed operation the motor is run as an 8 pole motor. (715 rpm 50Hz/850 rpm/60Hz)

Selection of the pole configuration for run speed is made through the motor contactors C4, C5 and C6.

In HI speed setting the motor contactors C4 and C6 close, C4 switching power to the motor on the 4 pole connection leads, and C6 binding 4 of the 8 motor poles to allow motor to run as a 4 pole motor.

In LO speed setting the motor contactor C5 closes to switch power to the motor on the 8 pole connections leads, with contactors C4 and C6 remaining open.

Motor contactors C5 and C6 are mechanically interlocked (interlock fitted to rear of contactors) to prevent any switching overlap between LO and HI speed changes.

The motor speed control is by manual operation of the Fan Speed switch on the control panel. This rotary switch simply supplies power to either motor contactors C4 and C6 for HI speed, or C5 for LO speed. The contactors stay closed in the selected setting unless the oven door is opened. Closing the oven door allows the contactors to switch on again.

Fan / Motor - Single Phase Models

The operation of the fan motor on single phase E35 models is the same as other three phase models for two speed and bi-direction operation, except for the electrical circuit required.

On single phase models the same motor is used as on three phase models, but with capacitors in

the motor circuit to create an artificial phase lag, that is normally part of the three phase supply on three phase models. Use of the three phase motor is required to retain the bi-direction operation.

On single phase models the L1 supply to the motor connects to the normal L1 connection of the motor, and the Neutral supply connects to the normal L2 (as connected on three phase models) connection of the motor. A capacitor is then connected to the normal L3 (as connected on the three phase models) connection of the motor, and this capacitor is supplied power from the L1/Phase supply. This capacitor is referred to as the Run capacitor as it is permanently in the circuit during motor operation. Each motor on single phase models has two run capacitors, one for the LO speed operation (lower capacitance) and one for the HI speed operation (higher capacitance). Each Run capacitor is only used when the motor is running at that speed setting.

Additionally a Start capacitor is also fitted on single phase models, and is used for starting the motor rotation at the beginning of each direction change when in HI speed setting only. This capacitor is switched on for approximately 7 seconds only at the beginning of each motor start up, with a contactor C7 switching the Start capacitor on and off, and with a timer T6 controlling the timing of the contactor C7.

Fan direction change in single phase models is still controlled by motor contactors C2 and C3. However unlike three phase models where C2 and C3 swap phases over to change motor start rotation/direction, single phase models use C2 and C3 to switch the run capacitor from the L1 supply to the Neutral supply for direction change.

Control of the motor cycle timing and dwell timing is the same as three phase models.

Motor Protection

Refer Circuit Protection at start of section.

Steam System

The E35 Turbofan ovens feature an automatically timed oven chamber steaming system, that allows operators to inject a 10 second period of steam into the oven at any stage. The steam is generated when a solenoid valve opens and supplies mains water to a calibrated wide spray angle nozzle in the oven that discharges the water as a fine spray into the oven fan. The fine spray at a wide angle is then immediately thrown by the fan circulation across the oven heating elements either side of the fan. The fine spray instantaneously turns to steam on

the hot elements, which is supported by the hot air of the oven also turning the water droplets into steam.

The steam is initiated by depressing the Steam switch on the control panel. When depressed the steam switch provides power one of two Steam timers which are preset to 10 seconds steam cycle duration. These Steam timers are T2 and T4.

T2 is associated with fan dwell timer T3 and is used when steam is required during the fan direction cycle that uses the T3 dwell timer.

T4 is associated with fan dwell timer T5 and is used when steam is required during the fan direction cycle that uses the T5 dwell timer.

This ensures that steam can be used in either fan direction cycle, and additionally allows the fan to be turned on as soon as steam is activated, even if the fan was in a direction change dwell. Ensuring that the fan is running when steam is required is necessary to atomise the water droplets by the mechanical action of the fan, and by the fan throwing the water across the elements.

The Steam switch on the control panel only needs to be depressed momentarily as the duration of the steam injection is automatically timed by the steam timers. The Steam switch will illuminate for the duration of the steam injection to provide a visual confirmation of the steaming process. The light in the steam switch is independent of the switch contacts and is powered by the electrical circuit to the water solenoid valve. Therefore the switch is illuminated for as long as the water solenoid is open: 10 seconds.

Summary of Components

The electrical switchgear (not user controls) components are summarised as follows:

- C1** Heating contactor
Switches elements ON/OFF
- C2** Motor direction contactor
Phases switched in line
- C3** Motor direction contactor
Phases L1 and L2 swapped on 3 phase models
Run capacitor swapped from L1 to Neutral on 1 phase models
- C4** Motor speed contactor
HI speed
- C5** Motor speed contactor
LO speed
- C6** Motor speed contactor
HI speed (changes motor from 8 pole to 4 pole)
- T1** Fan cycle timer
Direction cycle
- T2** Steam timer
For T3 dwell direction
- T3** Fan dwell timer
Alternate direction (always initial direction dwell)
- T4** Steam timer
For T5 dwell direction
- T5** Fan dwell timer
Alternate direction (always 2nd direction dwell)
- C7** Motor start capacitor contactor.
(Single phase models only)
- T6** Motor start capacitor timer
(Single phase models only)

Motor contactor interlocks fitted to C2+C3 (mounted on rear on contactors)

Motor contactor interlocks fitted to C5+C6 (mounted on rear on contactors)

The following Troubleshooting Guide should be used to identify any incorrect oven operation. On correct identification of the operating fault the Troubleshooting guide will make reference to the corrective action required, or refer to the Fault Diagnosis section and/or Service section to assist in correction of the fault.

4. MAINTENANCE

⚠ WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

4.1 CLEANING

⚠ WARNING: ALWAYS TURN THE POWER SUPPLY OFF BEFORE CLEANING.

⚠ IMPORTANT: THIS UNIT IS NOT WATER PROOF. DO NOT USE A WATER JET SPRAY TO CLEAN INTERIOR OR EXTERIOR OF THIS UNIT.

EXTERIOR

Clean with a good quality stainless steel cleaning compound. Harsh abrasive cleaners may damage the surface.

INTERIOR

Ensure that the oven chamber is cool. Do not use wire brushes, steel wool or other abrasive materials. Clean the oven regularly with a good quality oven cleaner. Take care not to damage the fan or the tube at the right side of the oven which controls the thermostat.

SIDE RACKS

To remove, follow instructions given in the installation section.

OVEN DOOR (HINGED GLASS)

Outer surfaces: Clean with conventional glass cleaners

Inner surfaces: To clean between the inner and outer door glasses, firstly ensure the door is locked shut. With a screwdriver, coin, or other suitable device, $\frac{1}{4}$ turn the outer glass locks to release the outer glass and allow it to be hinged open for cleaning access (refer to figure 4.1 for correct procedure).

⚠ IMPORTANT: ALWAYS ENSURE THAT THE OUTER GLASS IS HINGED CLOSED AND LOCKED INTO POSITION BEFORE OPENING DOOR.

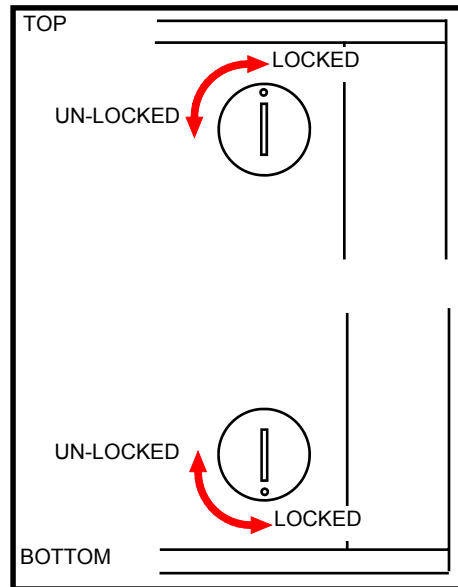


Figure 4.1

OVEN DOOR (HINGED GLASS)

Outer surfaces: Clean stainless steel with quality stainless steel cleaner.

Inner surfaces: Clean stainless steel with quality stainless steel cleaner.

Door glass: Clean with conventional glass cleaners.

OVEN SEALS

To remove, pull out the seal starting at each corner. The seal may be washed in the sink, but take care not to cut or damage it. To replace, fit the seal in at the corners first, then push in the rest of the seal.

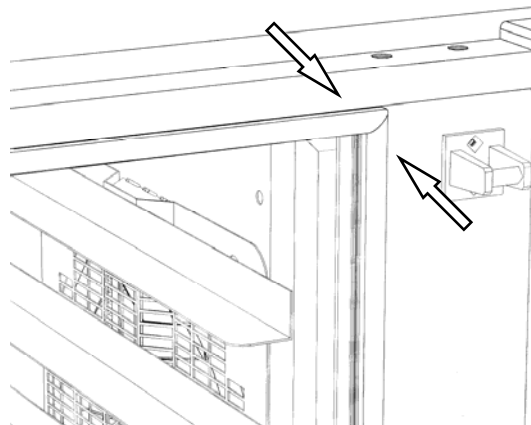


Figure 4.2

4.2 ROUTINE PROCEDURES

| | PROCEDURE | INTERVAL |
|-------------------|---|-----------|
| DOOR SEALS | Check for deterioration. | 12 months |
| DOOR PIVOT BUSHES | Check for wear. | 12 months |
| DOOR CATCH | Ensure that catch is adjusted such that the door closes properly. | 12 months |
| ELEMENT | Check that element resistance is correct to it's rating (refer 6.3.12). | 12 months |
| WATER NOZZLE | Check for lime build-up in water nozzle. | 12 months |

5. TROUBLE SHOOTING



WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

| FAULT | POSSIBLE CAUSE | REMEDY |
|--|--|--|
| THE OVEN DOES NOT OPERATE / START | <p>The mains isolating switch on the wall, circuit breaker or fuses are "off" at the power board.</p> <p>The power switch on the oven is off ('0').</p> <p>Incorrect electrical supply.</p> <p>Oven circuit breaker tripped.</p> <p>Power switch on unit faulty.</p> | <p>Turn on.</p> <p>Turn switch to 'I' position.</p> <p>Ensure electrical supply correct.</p> <p>Identify fault. Reset circuit breaker.</p> <p>Replace. (Refer service section 6.3.1)</p> |
| FAN DOESN'T OPERATE | <p>Door not closed. <i>(Fan only operates when the door is closed).</i></p> <p>Door microswitch out of adjustment.</p> <p>Door microswitch faulty.</p> <p>Fan motor faulty.</p> <p>Wiring.</p> <p>Fan timers.</p> | <p>Close door.</p> <p>Adjust. (Refer service section 6.4.1)</p> <p>Replace. (Refer service section 6.3.3)</p> <p>Replace. (Refer service section 6.3.21)</p> <p>Check and tighten any loose wiring.</p> <p>Replace. (Refer service section 6.3.11)</p> |
| STEAM LIGHT DOES NOT ILLUMINATE | Blown bulb. | Replace bulb. |
| NO STEAM <i>(continued next page)</i> | <p>Water not turned on.</p> <p>Blocked filter in water solenoid.</p> <p>Nozzle blocked.</p> <p>Check valve blocked/corroded.</p> | <p>Turn water on at isolating valve.</p> <p>Clean filter.</p> <p>Remove, clean or replace. (Refer service section 6.3.16)</p> <p>Remove check valve. (Refer service section 6.3.15)</p> |

| FAULT | POSSIBLE CAUSE | REMEDY |
|--------------------------------|--|--|
| NO STEAM (continued) | Steam tube blocked. | Remove, clean or replace. |
| | Faulty solenoid coil. | Replace. (Refer service section 6.3.16) |
| | Steam switch faulty. | Replace. (Refer service section 6.3.14) |
| | Timer faulty. | Adjust / Replace. (Refer service section 6.3.11) |
| STEAMS ONLY SOMETIMES | Steam timer faulty. | Replace. (Refer service section 6.3.11) |
| NO HEAT | Faulty contactor. | Replace. (Refer service section 6.3.11) |
| | Thermostat faulty. | Replace. (Refer service section 6.3.8) |
| SLOW RECOVERY | Faulty contactor. | Replace. (Refer service section 6.3.11) |
| | Element(s) blown. | Replace. (Refer service section 6.3.12) |
| NO TEMPERATURE CONTROL | Faulty door microswitch. | Adjust or replace. (Refer service section 6.3.3) |
| | Faulty heating contactor. | Replace. (Refer service section 6.3.11) |
| | Over-temperature control tripped. | Reset. |
| | Faulty thermostat controls. | Replace. (Refer service section 6.3.7) |
| OVER-TEMPERATURE CONTROL TRIPS | Oven too hot, thermostat out of calibration. | Replace. (Refer service section 6.3.8) |
| | Over-temp out of calibration. | Replace. (Refer service section 6.3.13) |
| TIMER WILL NOT TIME DOWN | Faulty timer. | Replace. (Refer service section 6.3.18) |
| NO TIME UP ALARM INDICATION | Faulty timer. | Replace. (Refer service section 6.3.18) |
| | Faulty buzzer. | Replace. (Refer service section 6.3.19) |
| NO HIGH FAN SPEED | Fan selector switch faulty. | Replace. (Refer service section 6.3.22) |
| NO LOW FAN SPEED | Fan selector switch faulty. | Replace. (Refer service section 6.3.22) |

| FAULT | POSSIBLE CAUSE | REMEDY |
|--|--|--|
| OVEN LIGHTS NOT ILLUMINATING | Blown bulb(s). Faulty lighting transformer. NOTE: <i>If both light bulbs have blown then there will be no output from the lighting transformer.</i> | Replace. (Refer service section 6.3.4) Replace. (Refer service section 6.3.6) |
| OVEN VENT INDICATOR NOT ILLUMINATING WHEN IN 'OPEN' POSITION | Indicator faulty. Switch faulty. | Replace. (Refer service section 6.3.2) Replace. (Refer service section 6.3.23) |
| OVER-PRESSURE VENT NOT OPERATING DURING STEAM CYCLE | Vent blocked. Over-pressure vent mechanism restricted. | Remove and clean blockage. Remove and clean. |
| DOOR DOES NOT CLOSE | Tray in way of door. Door seal obstruction. Door handle in wrong position. Door setting incorrect. | Correctly position tray in rack. Correctly install door seal. (Refer maintenance section) Reposition door handle. Adjust. (Refer service section 6.4.3) |
| DOOR SEAL LEAKS | Door seal damaged. Door seal incorrectly fitted. | Replace. (Refer maintenance section) Correctly install door seal. (Refer maintenance section) |
| RACKS DO NOT FIT | Incorrect pin location. | Relocate on correct pin. |

6. SERVICE PROCEDURES



WARNING: ENSURE POWER SUPPLY IS SWITCHED OFF BEFORE SERVICING.



WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

| SECTION | PAGE NO. |
|--|-----------|
| 6.2 ACCESS..... | 22 |
| 6.2.1 Control Panel..... | 22 |
| 6.2.2 Service Panel (RH Side Panel)..... | 22 |
| 6.2.3 Baffle | 22 |
| 6.2.4 Side Panel (LH Side)..... | 22 |
| 6.2.5 Control Panel Rear | 22 |
| 6.3 REPLACEMENT | 23 |
| 6.3.1 Power Switch..... | 23 |
| 6.3.2 Indicator Neon Light | 23 |
| 6.3.3 Door Microswitch | 23 |
| 6.3.4 Light Bulb / Glass | 24 |
| 6.3.5 Light Fitting | 24 |
| 6.3.6 Lighting Transformer | 24 |
| 6.3.7 Thermostat Dial | 24 |
| 6.3.8 Thermostat Board..... | 25 |
| 6.3.9 Thermostat Probe..... | 25 |
| 6.3.10 Timer / Contactor..... | 26 |
| 6.3.11 Elements | 26 |
| 6.3.12 Over Temperature Thermostat..... | 26 |
| 6.3.13 Steam Switch | 27 |
| 6.3.14 Spray Nozzle | 27 |
| 6.3.15 Check Valve | 27 |
| 6.3.16 Water Solenoid..... | 27 |
| 6.3.17 Cooling Fan | 28 |
| 6.3.18 Bake Timer | 28 |
| 6.3.19 Buzzer | 28 |
| 6.3.20 Oven Fan..... | 28 |
| 6.3.21 Fan Motor | 29 |
| 6.3.22 Fan Speed Selector Switch..... | 29 |
| 6.3.23 Vent Switch | 29 |
| 6.3.24 Vent / 'Over Pressure' Vent..... | 29 |
| 6.3.25 Door Outer Glass | 30 |
| 6.3.26 Door Inner Glass | 30 |
| 6.3.27 Door Catches | 30 |
| 6.3.28 Door Handle | 30 |
| 6.3.29 Door Catch Mechanism..... | 30 |
| 6.3.30 Door Handle Mechanism..... | 31 |

| | | |
|------------|--|-----------|
| 6.4 | ADJUSTMENT / CALIBRATION | 31 |
| 6.4.1 | Door Microswitch Adjustment..... | 31 |
| 6.4.2 | 60 Minute Timer Zero Position Adjustment..... | 31 |
| 6.4.3 | Door Setting / Adjustment | 32 |
| 6.4.4 | Door Reversal | 32 |
| 6.4.5 | Fan and Steam Timer Operation / Adjustment | 34 |
| | Fan / Steam Flow Chart | 35 |

6.2 ACCESS

6.2.1 CONTROL PANEL

- 1) Remove vent knob by pulling straight off.
- 2) Remove screw above vent shaft.



Figure 6.2.1

- 3) Panel is now free to hinge at bottom, take care not to drop panel or pull wires out. (support panel while working with panel open).

6.2.2 SERVICE (RH SIDE) PANEL

- 1) Undo the 4 screws holding panel.

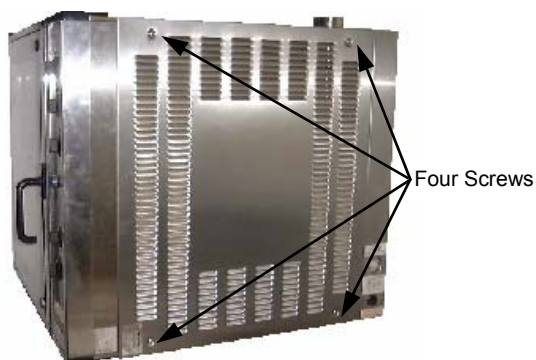


Figure 6.2.2

- 2) Remove panel.

6.2.3 BAFFLE

- 1) Remove racks, trays and RH side rack.
- 2) Undo the 4 nuts holding the baffle.
- 3) Pull panel off studs, pull bottom into middle of oven and remove panel.

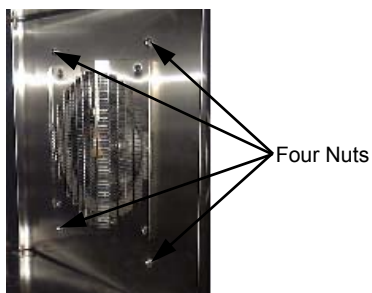


Figure 6.2.3

6.2.4 SIDE PANEL (LH SIDE)

- 1) Undo the 4 screws holding panel.
- 2) Remove panel.

6.2.5 CONTROL PANEL—REAR

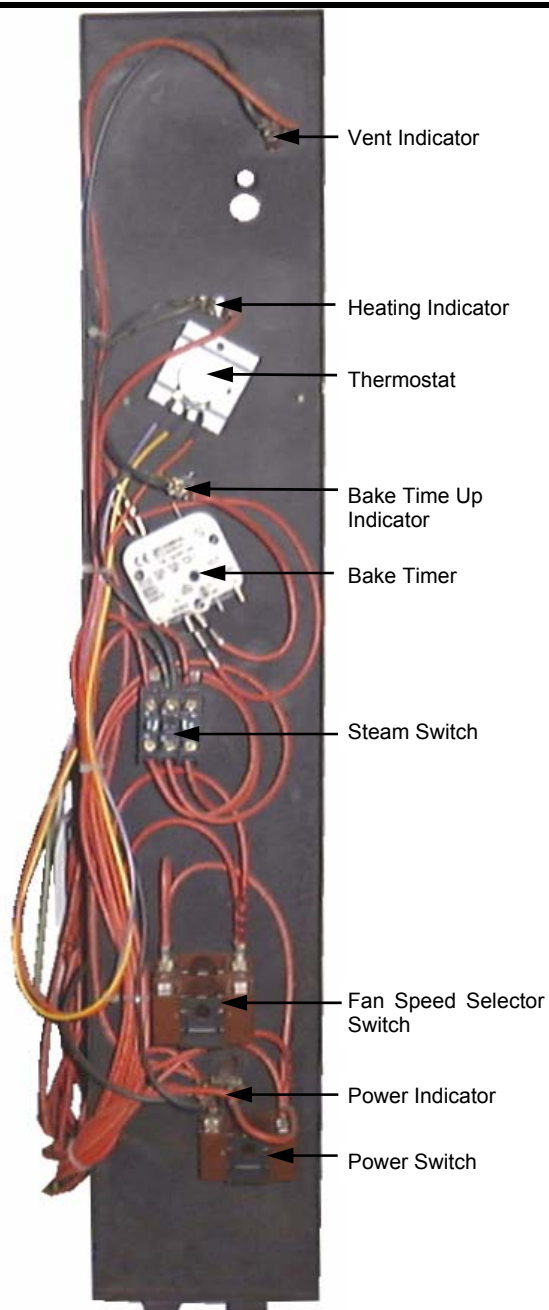


Figure 6.2.4

6.3 REPLACEMENT

6.3.1 POWER SWITCH

- 1) Pull knob off front of switch.
- 2) Open control panel (refer 6.2.1) and undo 2 screws securing switch.

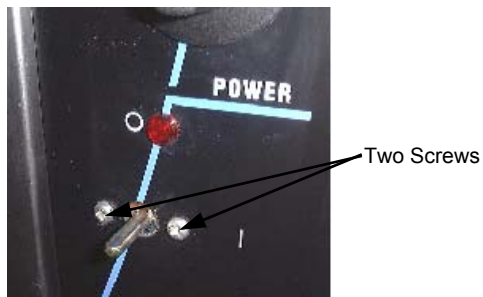


Figure 6.3.1

- 3) Transfer wires to new switch.
- 4) Withdraw old switch and insert new switch, securing with screws.

6.3.2 INDICATOR LIGHT

- 1) With control panel open (refer 6.2.1) remove wires from the back of the indicator.

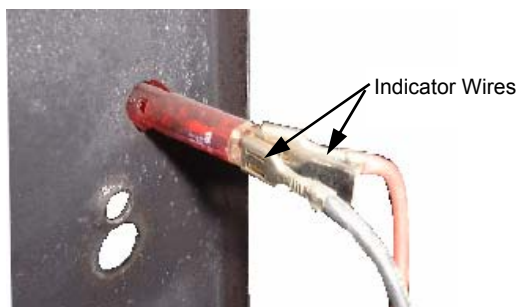


Figure 6.3.2

- 2) From back push indicator through front of panel rotating clockwise.
- 3) Push new indicator in from front of panel, and reconnect wires.

6.3.3 DOOR MICROSWITCH

- 1) Open oven door.
- 2) Remove nut on front of micro-switch.

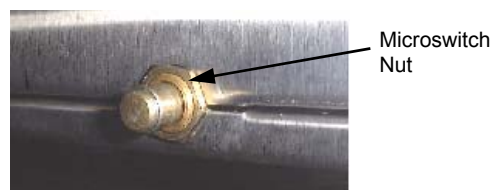


Figure 6.3.3

- 3) Remove 3 screws holding microswitch cover panel and drop panel down.

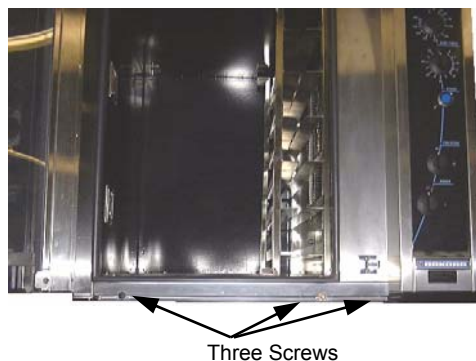


Figure 6.3.4

- 4) Remove 2nd nut on front of micro-switch, to free micro-switch. (Loosen / remove 2 bolts holding micro-switch bracket as required).

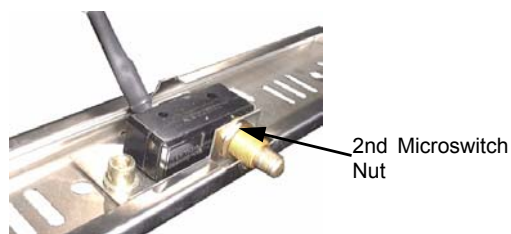


Figure 6.3.5

- 5) Transfer wires to new the new switch and re-assemble.

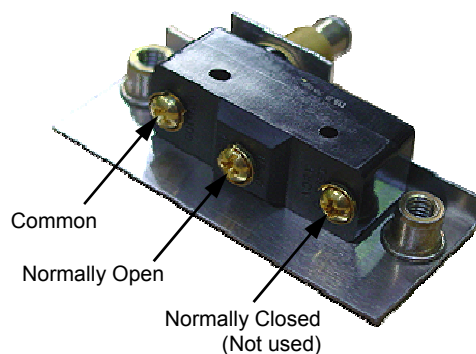


Figure 6.3.6

- 6) Adjust micro-switch (refer 6.4.1).

6.3.4 LIGHT BULB / GLASS

- 1) Remove LH side rack from oven.
- 2) Undo the four screws holding light face surround on and remove the glass and surround. Check the seal and replace if necessary.

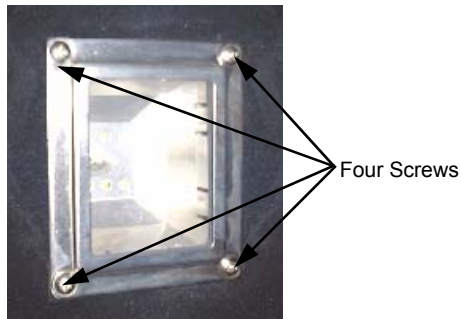


Figure 6.3.7

- 3) Pull bulb straight out of fitting, towards back of oven (taking care not to break glass). Replace bulb.

NOTE: The bulb is a halogen lamp, so do not touch the glass of the bulb while pushing straight into light fitting (use an oil free cloth or paper towel).

- 4) Replace seal, glass and surround, securing with the screws (do not over tighten).

6.3.5 LIGHT FITTING

- 1) Remove glass and surround (refer 6.3.4).
- 2) Remove LH side panel (refer 6.2.).
- 2) Disconnect wires at connector block (inside LH side panel).

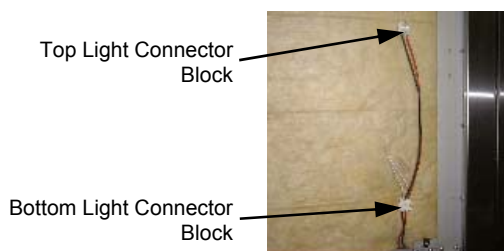


Figure 6.3.8

- 3) Open fibreglass to expose lamp fitting.
- 4) Push in tabs at back of light fitting from outside oven, pivot into oven and remove.
- 5) Re-assemble in reverse order.

6.3.6 LIGHTING TRANSFORMER

- 1) With R/H service panel removed (refer 6.2.2) transfer wires to new transformer with the aid of a screw-driver.
- 2) Remove one screw and loosen the second screw securing the transformer.

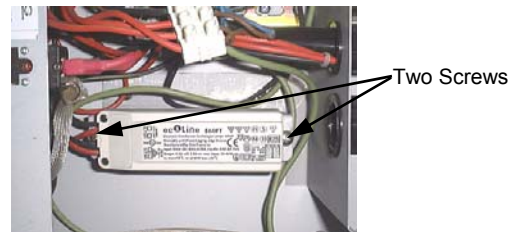


Figure 6.3.9

- 3) Remove the old transformer and secure the new transformer with the screws.

6.3.7 THERMOSTAT DIAL

- 1) Pull knob off front of thermostat.
- 2) Open control panel (refer 6.2.1) and undo two screws securing thermostat bracket.



Figure 6.3.10

- 3) Transfer wires to new thermostat.
- 4) Undo nut holding thermostat to bracket

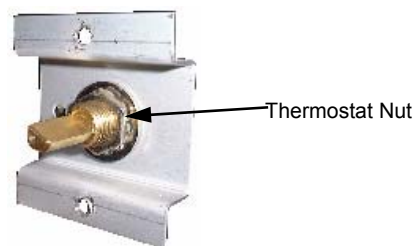


Figure 6.3.11

- 5) Withdraw old thermostat and insert new thermostat, securing with nut.
- 6) Re-assemble in reverse order.

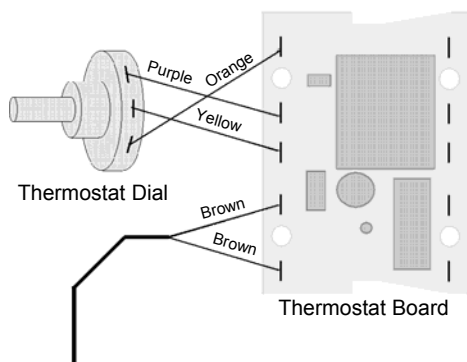


Figure 6.3.12

Thermostat Dial Resistances

NOTE: Dial must be disconnected from board for testing.

O is orange wire, P is purple wire, Y is yellow wire.

| Dial Position | Resistance Between | | |
|---------------|--------------------|--------------|--------------|
| | O-P | P-Y | O-Y |
| Off | 900 Ω | 900 Ω | 0 Ω |
| Halfway | 900 Ω | 450 Ω | 450 Ω |
| Maximum | 900 Ω | 0 Ω | 900 Ω |

6.3.8 THERMOSTAT BOARD

- 1) With control panel open (refer 6.2.1) transfer wires to new board.
- 2) Squeeze legs together on plastic clips holding board and extract.
- 3) Push new board onto clips.

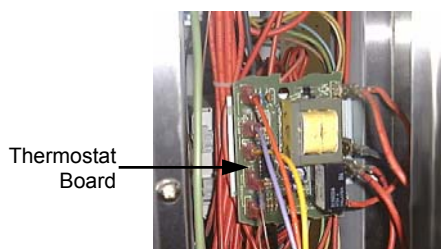


Figure 6.3.13

6.3.9 THERMOSTAT PROBE

- 1) Remove R/H service panel (refer 6.2.1) and oven fan baffle (refer 6.2.3).
- 2) Remove bracket on steam line inside oven cavity by undoing the two screws.

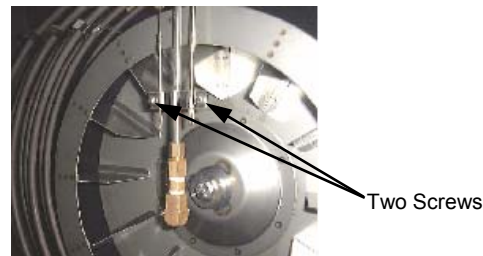


Figure 6.3.14

- 3) Undo the 2 bolts on the flange where the probe enters the oven (inside oven).

NOTE: Removal of probe and its mounting plate will require breaking of the silicone sealant.

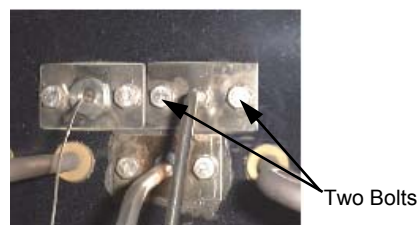


Figure 6.3.15

- 4) With control panel open (6.2.1) remove wires from thermostat board (2 brown wires at bottom left of board - refer figure 6.3.13).
- 5) Remove probe by drawing wires into oven.
- 6) Install the new probe in the reverse order.

NOTE: Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

Thermostat Probe Resistances

NOTE: Probe must be disconnected from board for testing.

| Temperature | Resistance (k Ω) |
|---------------|--------------------------|
| 0°C (32°F) | 288 |
| 37°C (99°F) | 56 |
| 100°C (212°F) | 6.1 |

6.3.10 CONTACTORS / TIMERS ETC

- 1) With R/H service panel removed (refer 6.2.2), remove the din rail mounted component.
- 2) Install the new component onto the din rail.
- 3) Transfer the wires from old component to new one.
- 4) On contactors C2-C3, and C5-C6, ensure that mechanical interlock (part number 020769) is fitted as illustrated below.

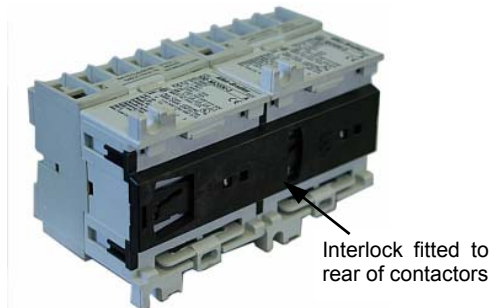


Figure 6.3.16

6.3.11 ELEMENTS

- 1) With service panel and baffle removed (refer 6.2.2 & 6.2.3) remove the wires from the element.
- 2) With the use of an $1\frac{1}{16}$ " tube spanner, undo the nuts on the outside at the element ends.
- 3) Pull element into oven and remove.

NOTE: When replacing or refitting elements ensure that the fibre sealing washers are used.

Element Resistances

NOTE: Element must be disconnected for testing. Resistances are given at room temperature.

| | |
|----------|---------------|
| 208-220V | 24.2 Ω |
| 230-240V | 28.8 Ω |

6.3.12 OVER-TEMP THERMOSTAT

- 1) Remove service panel (refer 6.2.2) and baffle (refer 6.2.3).
- 2) Remove bracket on steam line inside oven cavity by undoing the 2 screws (figure .3.15).
- 3) Undo the 2 bolts on the flange where the probe enters the oven (inside oven).

NOTE: Removal of the probe and mounting plate will require breaking of the silicone sealant.

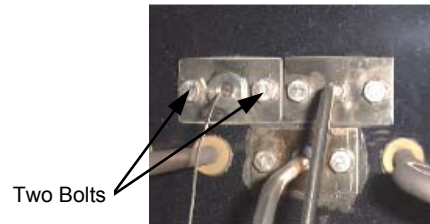


Figure 6.3.17

- 4) Undo gland nut on bracket and extract the probe from the bracket.

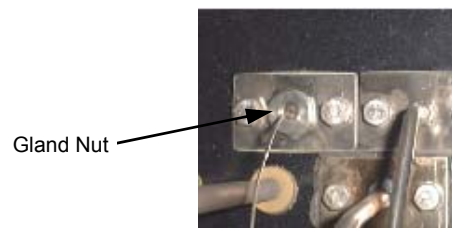


Figure 6.3.18

- 5) Undo the 2 screws holding the over-temp and remove over-temp.

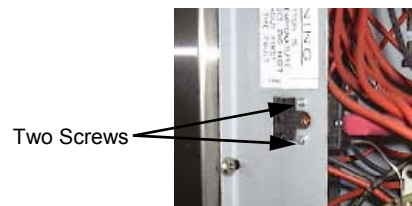


Figure 6.3.19

- 6) Transfer wires from old over-temp thermostat to the new one.
- 7) Install the new over-temp and probe in the reverse order of above.

NOTE: Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

6.3.13 STEAM SWITCH

- 1) Open control panel (refer 6.2.1).
- 2) Prise out or rotate the switch locking tab with a small screwdriver, and withdraw the steam switch assembly.

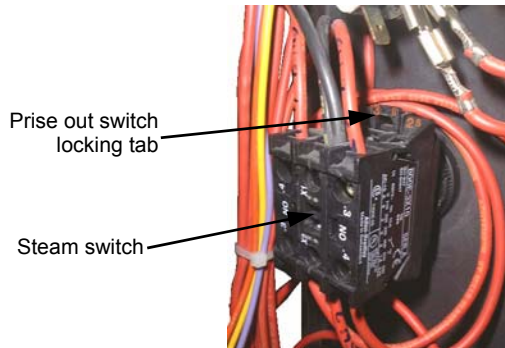


Figure 6.3.20

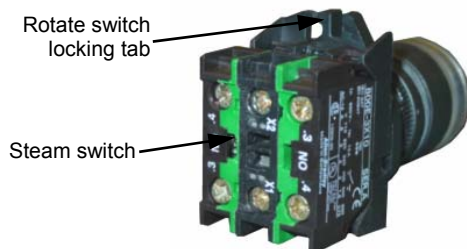


Figure 6.3.21

- 3) Transfer wires to new steam switch, and re-assemble in reverse order.

6.3.14 SPRAY NOZZLE

- 1) Remove the fan baffle (refer 6.2.3).
- 2) Unscrew the spray nozzle with $\frac{9}{16}$ " and $\frac{5}{8}$ " spanners.
- 3) Clean or replace as required, ensuring debris free on re-assembly.

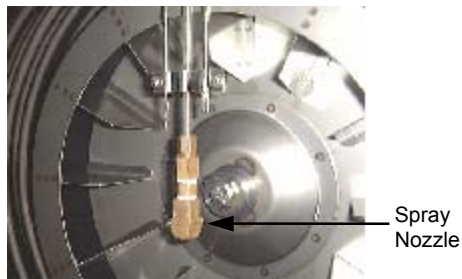


Figure 6.3.22

6.3.15 CHECK VALVE - UP TO S/N 261984

NOTE: If the check valve becomes blocked or corroded, the recommended course of action is to remove the internal parts of the valve, as it is not required for operation of the oven. The procedure for this is given below.

- 1) Remove the spray nozzle (refer 6.3.14).
- 2) Remove the check valve with $\frac{1}{2}$ " and $\frac{5}{8}$ " spanners.

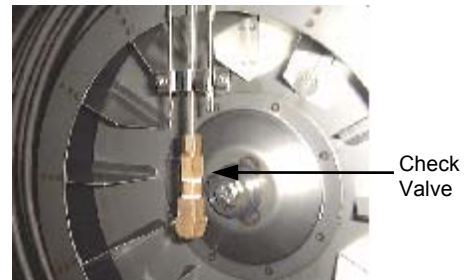


Figure 6.3.23

- 3) Dismantle the valve as illustrated, and discard the ball and spring from the valve.
- 4) Reassemble the valve (without the ball and spring) and refit to the unit.

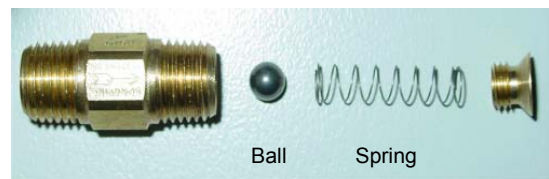


Figure 6.3.24

6.3.16 WATER SOLENOID

- 1) Ensure water supply is turned off.
- 2) With the R/H service panel removed (refer 6.2.2) remove the wires from the solenoid.
- 3) Undo the compression fitting on the output side of the solenoid ($\frac{1}{2}$ " spanner).
- 4) Remove the hose fitting, inlet side, and adapter ($\frac{13}{16}$ "), outlet side.
- 5) Remove two screws (up under bracket) and extract.

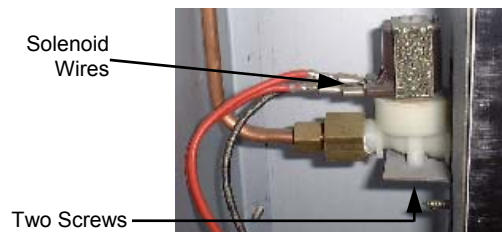


Figure 6.3.25

- 6) Secure new solenoid with screws, and re-assemble.

6.3.17 COOLING FAN

- 1) Remove R/H service panel (refer 6.2.2).
- 2) Remove the fan wires from the contactors.

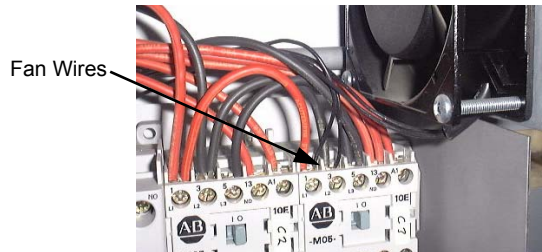


Figure 6.3.26

- 2) Remove the 4 screws securing the fan to it's mounting bracket and remove fan.

NOTE: There is a nut on each screw, hold the nut while undoing the screw.

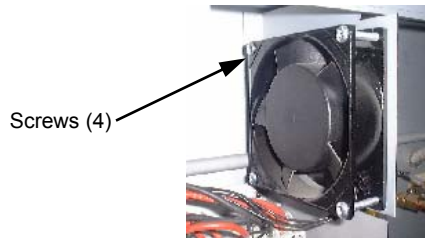


Figure 6.3.27

- 3) Replace and re-assemble in reverse order.
- 4) Ensure fan and flow direction is correct - sucks air out of controls and into motor cavity.



Figure 6.3.28

6.3.18 BAKE TIMER

- 1) Remove bake timer knob by pulling it firmly away from control panel.
- 2) Open control panel (refer 6.2.1) and undo two screws securing timer.



Figure 6.3.29

- 3) Transfer wires to new timer.
- 4) Withdraw old timer and insert new timer, securing with screws.
- 5) Replace knob.
- 6) Check timer switches off at '0' mark. If slight adjustment required, loosen the mounting screws and rotate timer in direction required.

6.3.19 BUZZER

- 1) Remove R/H service panel (refer 6.2.2).
- 2) Remove two screws holding buzzer bracket to panel.

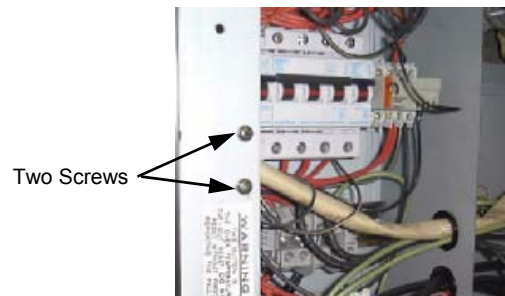


Figure 6.3.30

- 3) Withdraw and transfer wires to new buzzer.
- 4) Remove old buzzer from bracket, and secure new buzzer.
- 5) Reassemble in reverse order.

6.3.20 FAN

- 1) With service panel and oven fan baffle removed (refer 6.2.2 & 6.2.3) undo the 6 bolts holding the probes and steam line.

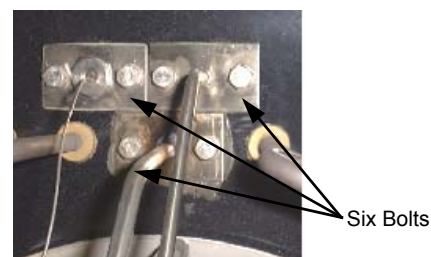


Figure 6.3.31

- 2) Undo the steam line compression fitting on the outside of the oven nearest the oven.

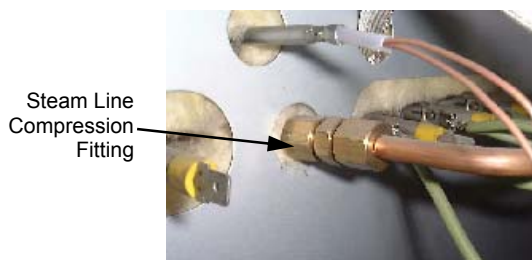


Figure 6.3.32

- 3) Pull assembly (steam nozzle etc) into the oven (without damaging probe lines) and support clear of the fan.

NOTE: Removal of the probe and mounting plate will require breaking of the silicone sealant.

- 4) Undo the bolt in the centre of the fan (use fan blades and heat deflector to steady).
- 5) Use a gear puller if necessary to remove the fan from the tapered shaft.
- 6) Replace and re-assemble in reverse order.

NOTE: Ensure probe mounting plate has RTV silicone sealant applied to sealing face to ensure a leak proof assembly. Remove excess sealant after tightening securing screws.

6.3.21 MOTOR

- 1) Remove fan (refer 6.3.19).
- 2) Undo the 4 bolts holding the motor in place (from the outside) and remove motor.

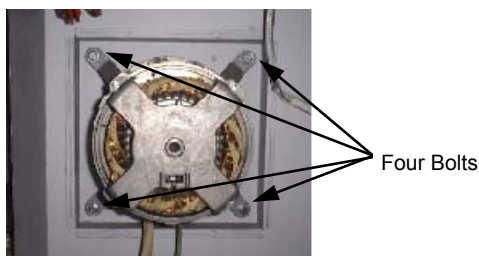


Figure 6.3.33

- 3) Disconnect motor leads.

IMPORTANT: Note wire colour and terminal connections.

- 4) Replace and reassemble in reverse order. Ensure wire leads are re-connected to correct contactor terminals.

6.3.22 FAN SPEED SWITCH

- 1) Pull knob off front of switch.
- 2) Open control panel (refer 6.2.1) and undo 2 screws securing switch.



Figure 6.3.34

- 3) Transfer wires to new switch. Pull 2nd switch off and transfer to new switch.
- 4) Withdraw old switch and insert new switch, securing with screws.

6.3.23 VENT SWITCH

- 1) With control panel open (refer 6.2.1) remove the four screws securing bracket and two screws securing switch.

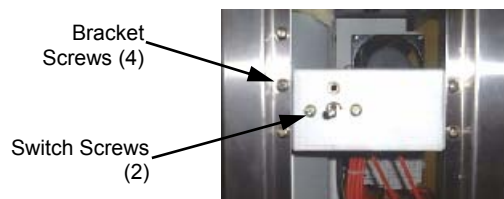


Figure 6.3.35

- 2) Remove bracket (twist to clear frame and pull forward), and switch (pull forward).
- 3) Transfer wires to the new switch and re-assemble in reverse order.

6.3.24 VENT / 'OVER-PRESSURE' VENT

- 1) Remove vent switch (refer 6.3.23) and Baffle (refer 6.2.3).
- 2) Rotate vent shaft 180° such that the spring is facing into the oven.
- 3) With 3mm Allen key remove Allen screw holding spring and vent assembly (inside top back RHS of oven).

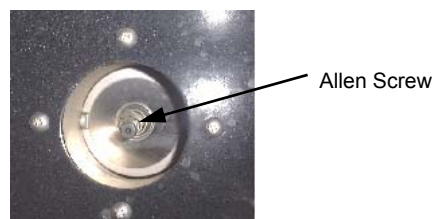


Figure 6.3.36

- 4) Internal vent pressure relief and vent shaft can now be removed and replaced.

6.3.25 DOOR OUTER GLASS

- 1) Ensure the door is locked shut
- 2) With a screwdriver, coin, or other suitable device, 1/4 turn the outer glass locks to release the outer glass and allow it to be hinged open.

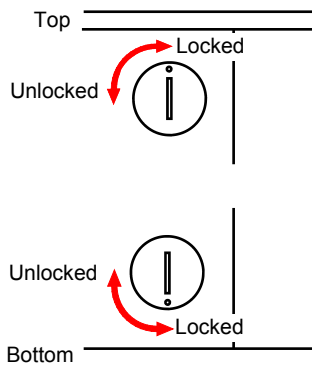


Figure 6.3.37

- 3) Undo the two hinges (two screws per hinge) and remove glass assembly.

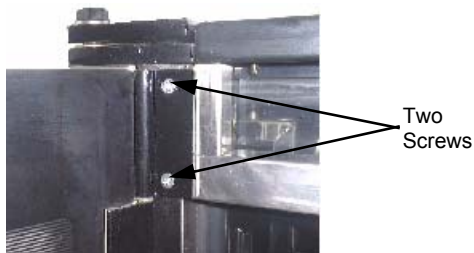


Figure 6.3.38

- 4) Replace and re-assemble in reverse order.

6.3.26 DOOR INNER GLASS

- 1) Open the oven door.
- 2) Remove the top door trim (two screws, one each end of trim). Take care not to drop the glass.

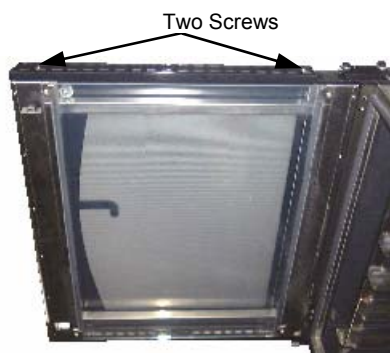


Figure 6.3.39

- 3) Lift and remove glass assembly. Replace and re-assemble in reverse order.

6.3.27 DOOR CATCHES

- 1) Open the oven door.
- 2) Undo two screws and pull catch straight out.

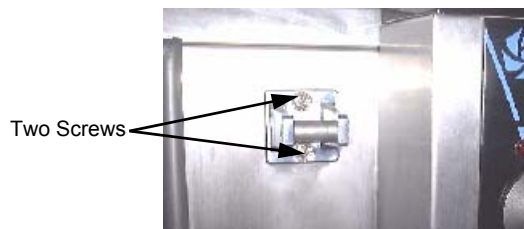


Figure 6.3.40

6.3.28 DOOR HANDLE

- 1) Open the oven door.
- 2) Remove the two screw caps covering the screws on the door handle.
- 3) Undo two screws securing handle, and pull straight out.



Figure 6.3.41

6.3.29 DOOR CATCH MECHANISM

- 1) Remove outer glass (refer 6.3.24) and door handle (refer 6.3.27) leaving door open.
- 2) Drill out the six rivets (refer figure 6.3.36, E) on the inside of the RH door trim (A) using a 3.5mm drill.
- 3) Remove four screws (F) on outside of RH door trim (A).
- 4) Remove trim (rotate toward inside of door).
- 5) Remove four screws (J) from RH inner door trim (B), and remove trim. (Loosen bottom trim screw (K) if required).
- 6) Remove two split-pins (G) from the connecting rod (H) on latch (C).
- 7) With handle in open position, push latch mechanism (C1) away from connecting rod (H) and remove the connecting rod.
- 8) Remove two screws (I) securing latching mechanism (C), and remove.
- 9) Replace and reassemble in reverse order.

6.3.30 DOOR HANDLE MECHANISM

- 1) Remove outer glass (refer 6.3.24), inner glass (refer 6.3.25) and door handle (refer 6.3.27), leaving door open.
- 2) Drill out the six rivets (refer figure 6.3.36, E) on the inside of the RH outer door trim (A) using a 3.5mm drill.
- 3) Remove four screws (F) on outside of RH outer door trim (A).
- 4) Remove trim (rotate toward inside of door).
- 5) Remove four screws (J) from RH inner door trim (B), and remove trim. (Loosen bottom trim screw (K) if required).
- 6) Remove four split-pins (G) from the connecting rods (H) on handle mechanism (D).
- 7) With handle in open position, push latch mechanism (C1) away from connecting rod (H) and remove the connecting rods.
- 8) Remove two screws (L) securing handle mechanism (D), and remove.
- 9) Re-assemble in reverse order.

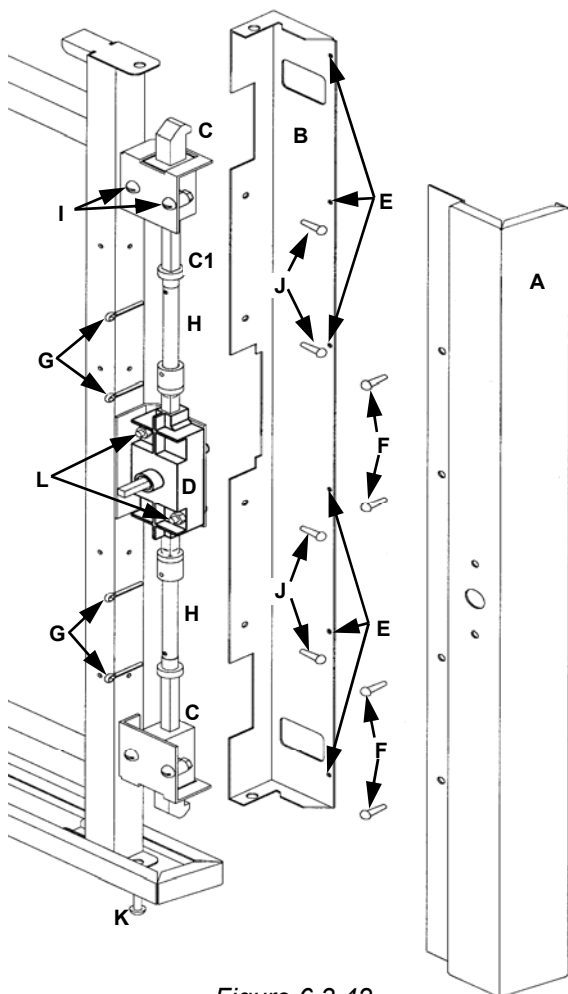


Figure 6.3.42

6.4 ADJUSTMENT / CALIBRATION

6.4.1 DOOR MICROSWITCH ADJUSTMENT

- 1) Open oven door.
- 2) Loosen nut on front of microswitch, located at bottom right of door frame.

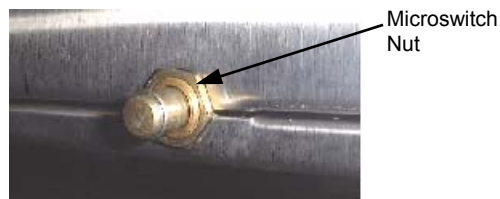


Figure 6.4.1

- 3) Loosen two bolts securing microswitch bracket from underside of oven.

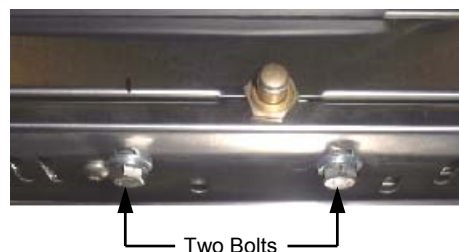


Figure 6.4.2

- 4) Adjust microswitch position and tighten bolts.

NOTE: Switch should operate when door handle approximately $\frac{1}{2}$ engaged (45°).

- 5) Repeat steps 2-5 as required, then tighten the front nut.

6.4.2 60 MINUTE TIMER ZERO POSITION

- 1) Remove 60 minute timer knob by pulling it firmly away from control panel.
- 2) Open control panel (refer 6.2.1). Loosen two screws on control panel holding 60 minute timer.



Figure 6.4.3

- 3) The timer can now be rotated as required to ensure that the buzzer sounds at the zero position.

6.4.3 DOOR SETTING ADJUSTMENT

- 1) Open oven door.
- 2) Loosen the two bolts securing the top door hinge plate to the oven.



Figure 6.4.4

- 3) Adjust oven door position and tighten two bolts.
- 4) Check door operation. Repeat steps 2 and 3 as necessary to ensure that door closes and latches evenly.

6.4.4 REVERSING THE DOOR

- 1) Open the oven door.
- 2) Undo the top and bottom door hinge pivot pins (whilst supporting the door). Remove the oven door.



Figure 6.4.5

- 3) Undo the bolts securing the top hinge plate and bottom hinge plate to the left hand side of the oven door opening and remove.



Figure 6.4.6

- 4) Remove the bolt catches (secured by two screws each) from the right hand side of the door frame, and secure to the left hand side of the door frame.



Figure 6.4.7

- 5) Remove the microswitch nut, and undo the three screws securing the microswitch cover panel to the bottom of the oven.

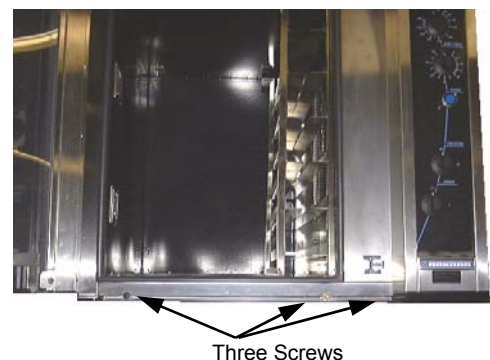


Figure 6.4.8

-
- 6) Undo the screws securing the microswitch mounting bracket to the cover panel, turn the bracket around, and re-secure the switch (facing the other way).

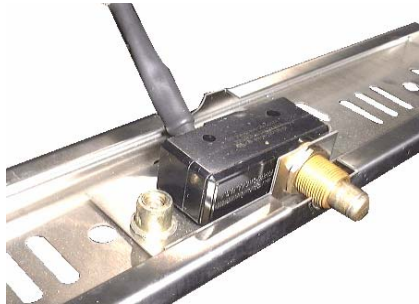


Figure 6.4.9

- 7) Refit the cover panel to the bottom of the oven with the microswitch at the left hand side of the oven.
- 8) Fit the top and bottom hinge plates (removed in step 2) to the right hand side of the oven door opening. (The plates should be turned upside-down from their position on the left hand side of the oven).
- 9) Turn the door over and refit the pivot pins to the hinge plates to secure the door to the right hand side of the door opening.
- 10) Check the operation of the door microswitch and adjust as necessary.

NOTE: The door handle mechanism will now operate in the 'up' direction rather than down.

6.4.5 FAN & STEAM TIMER OPERATION / ADJUSTMENT

All the timers have a dial on the front that adjusts the time the timer switches for when control energised. All the timers have an LED on the front that flashes when the timer is switched.

T1 Fan Cycle Timer

This timer switches power between the clockwise and anti-clockwise fan direction circuits, the time set is the duration on each fan direction.

Factory set to 1 1/2 minute.

Refer to Appendix C for timer settings.

T2 & T4 Steam Timers (2)

These should be set the same and determine the duration of the steam, one for clockwise fan circuit and one for anti-clockwise fan circuit. If the steam cycle is too long water will condense on the product and oven chamber, and oven may cool too much - it is usually better to have multiple cycles than a long cycle.

Factory set to 10 seconds.

Refer to Appendix C for timer settings.

T3 & T5 Dwell Timers (2)

Once again these should be set the same, this is the delay time between fan directions and after steaming, when no power is applied to the fan motor. One is for the clockwise fan circuit and one is for the anti-clockwise fan circuit.

Factory set to 10 seconds.

Refer to Appendix C for timer settings.

Figure 6.4.5 shows the function of the timers on a time line. The grey areas are when a timer is switched (LED flashing) or where fan is rotating / steam injecting. The dark lines show when the steam button has been pressed, the first is most common while the next two show the effect of steaming at the beginning or end of a direction cycle. Priority (power flow) is top to bottom on the chart (cycle timer effects all others)

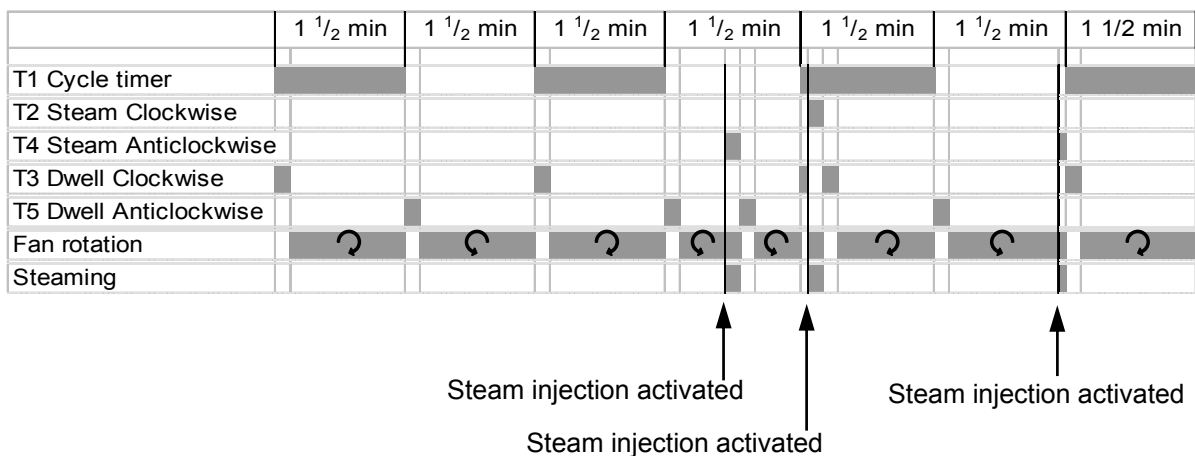
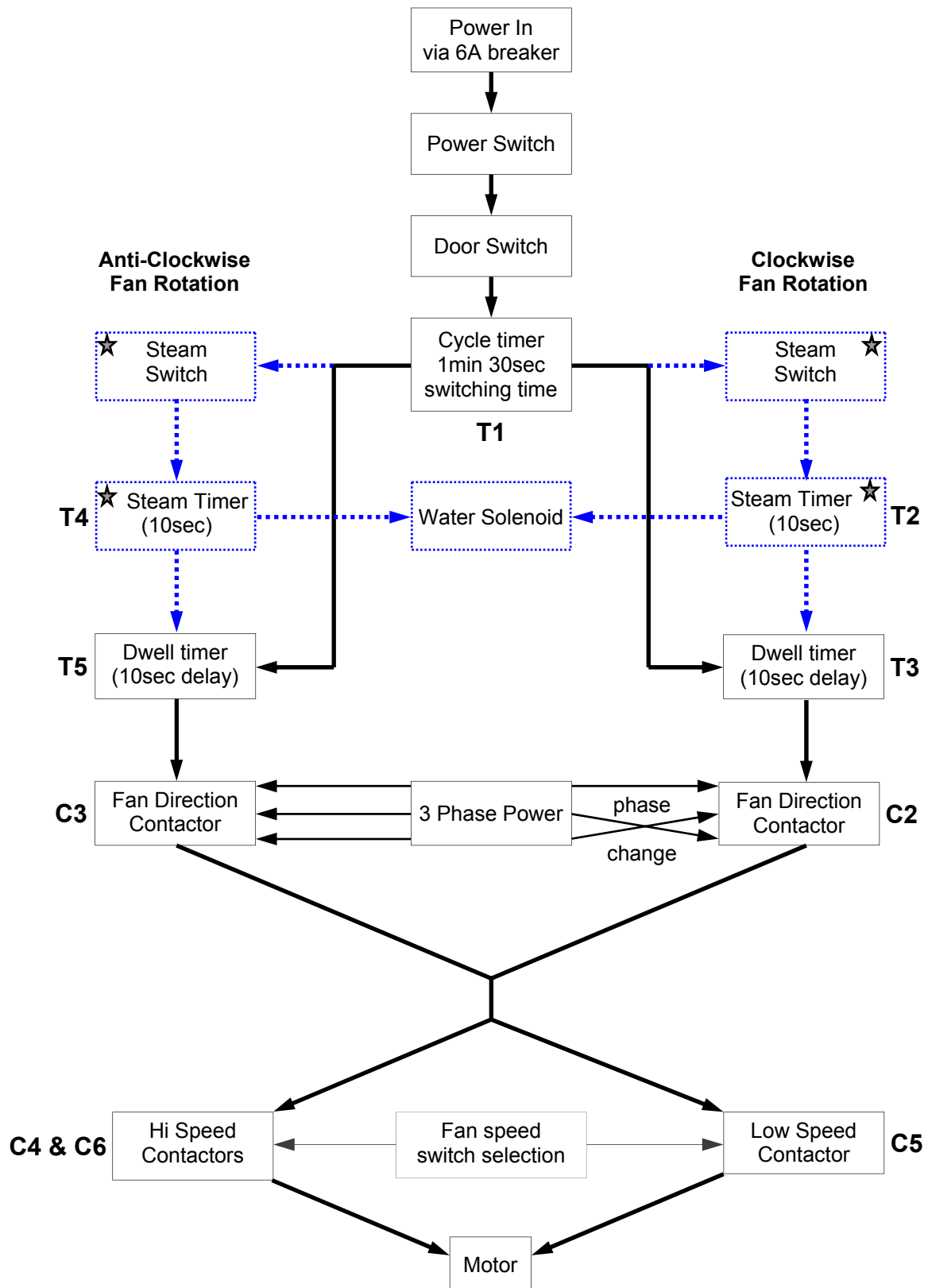


Figure 6.4.5

Fan / Steam Flow Chart

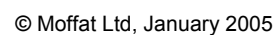
This is a guide only, for accurate representation of all connections refer to the wiring chart.



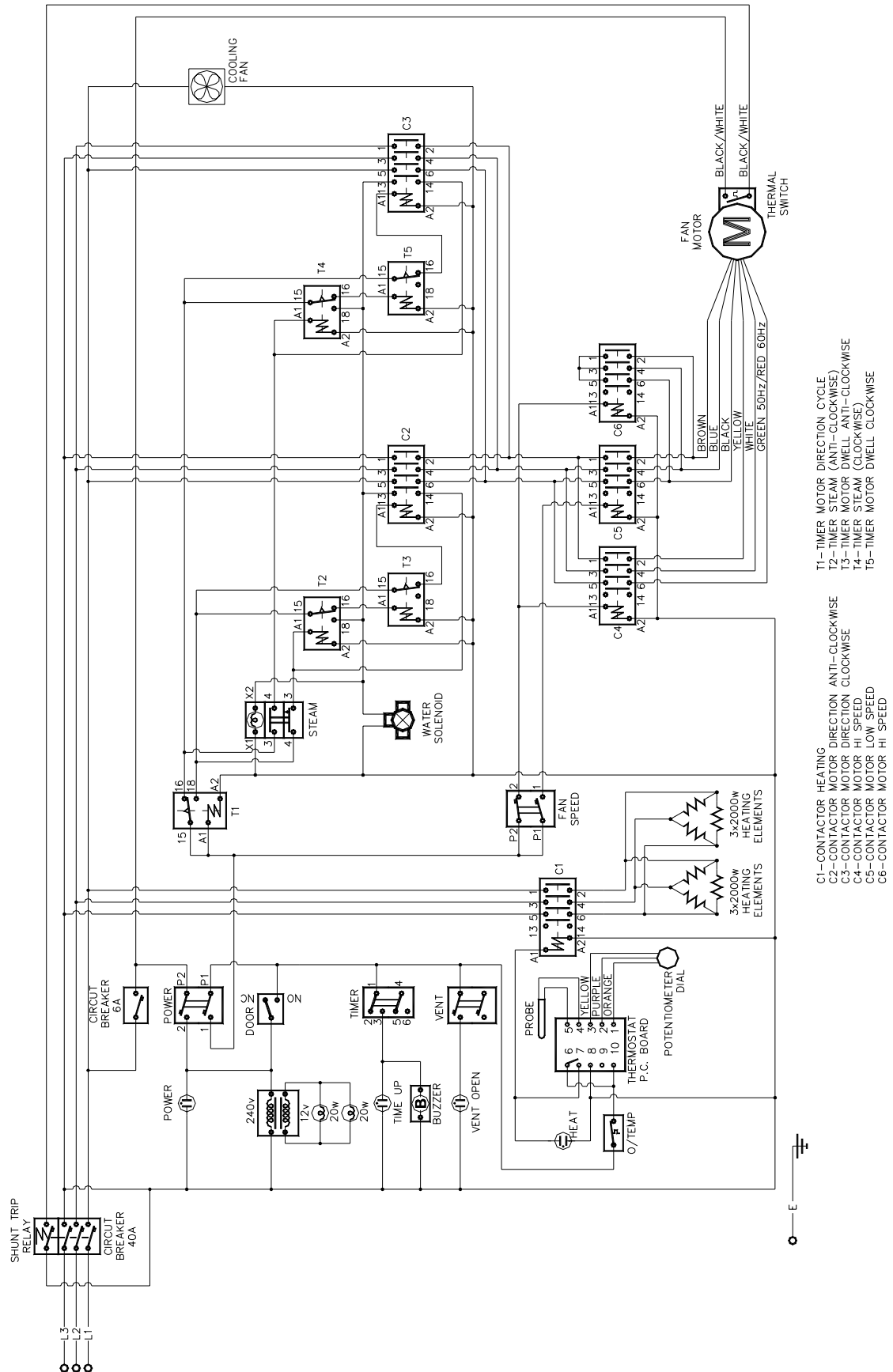
★ Steam switch on control panel - manual activation.

★ Timers T4 and T2 only operate when steaming (otherwise is direct connection).

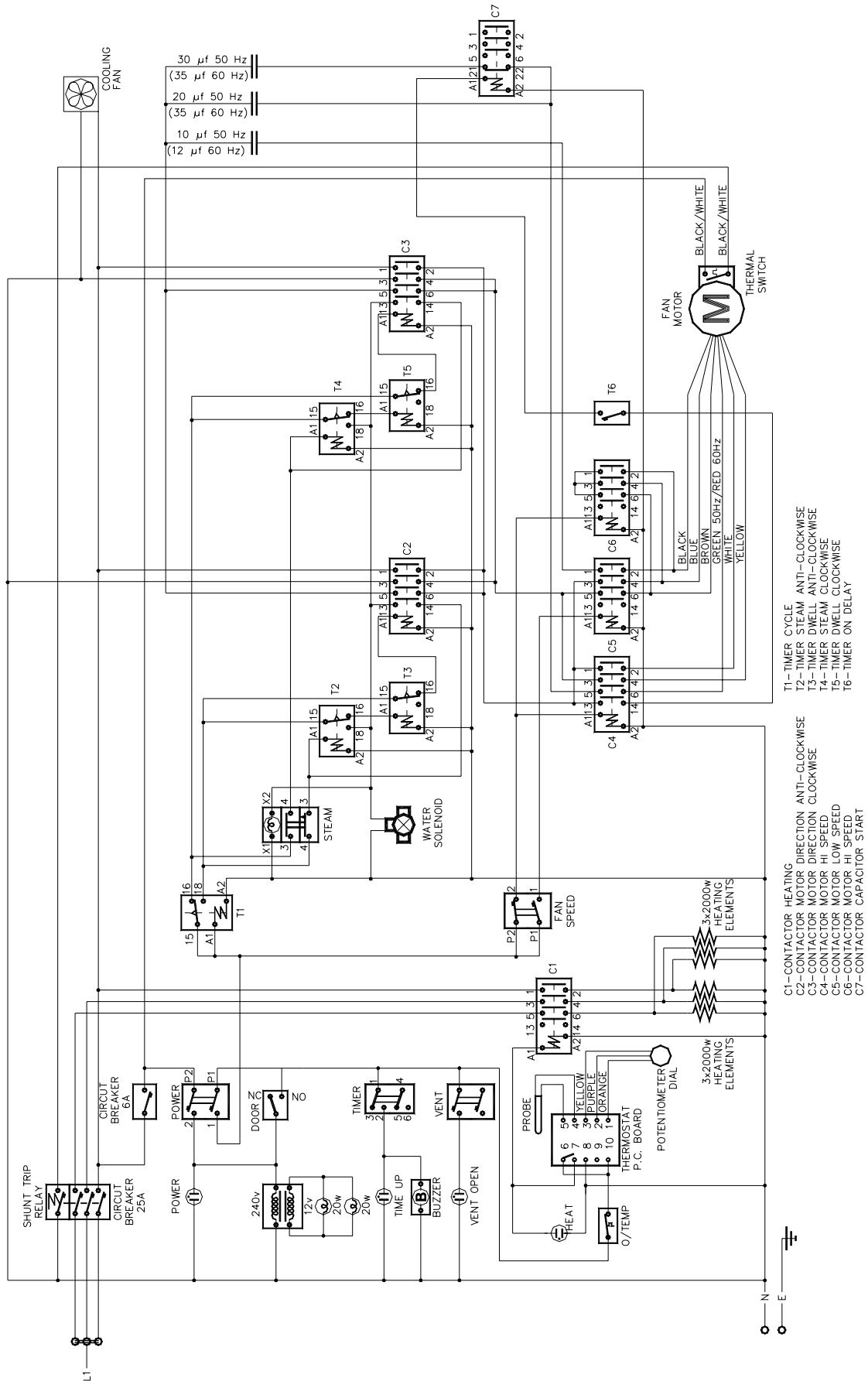
7.1 380-415V, 3P+N+E



7.2 208-240V, 3P+E

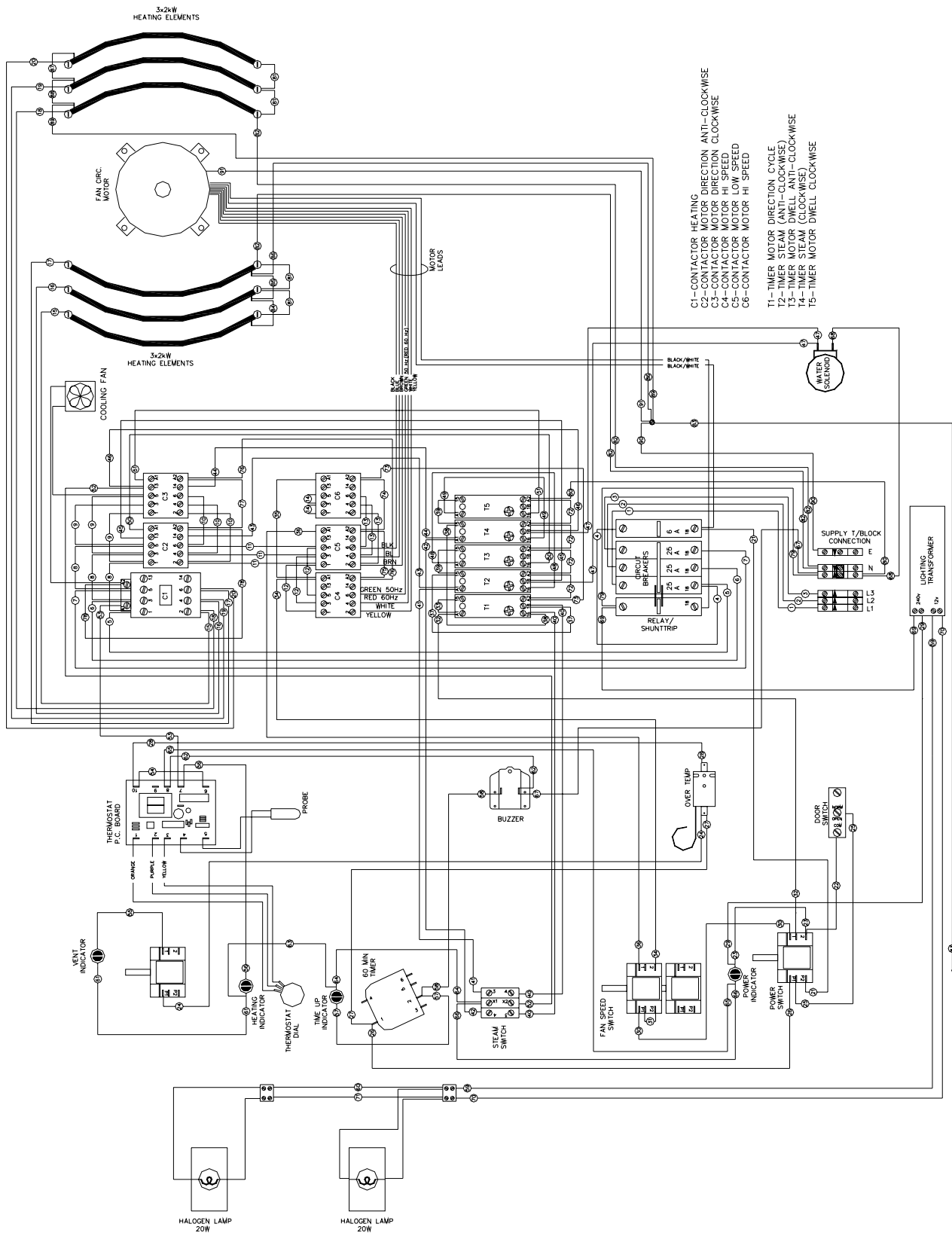


7.3 208-240V, 1P+N+E

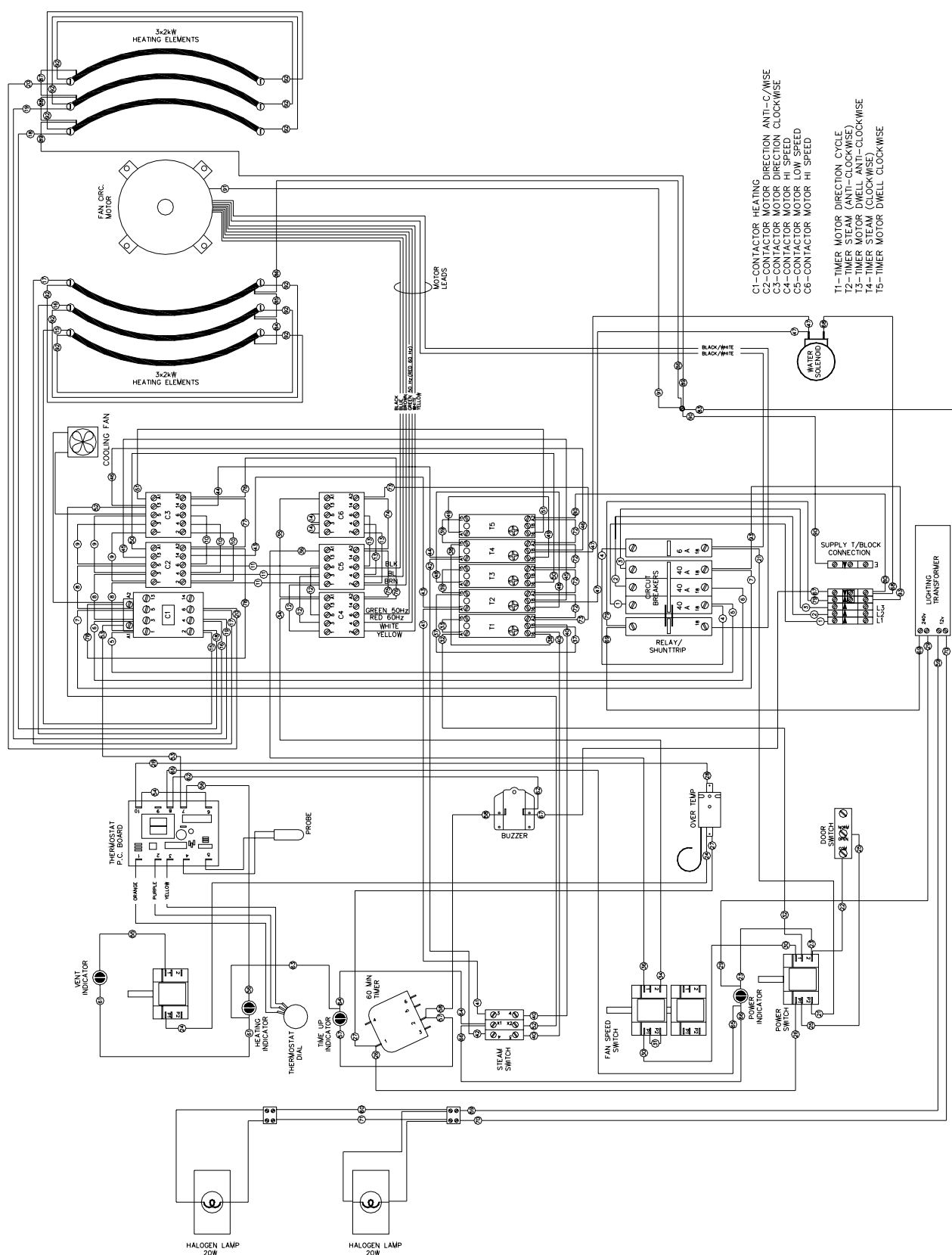


8. ELECTRICAL WIRING DIAGRAM

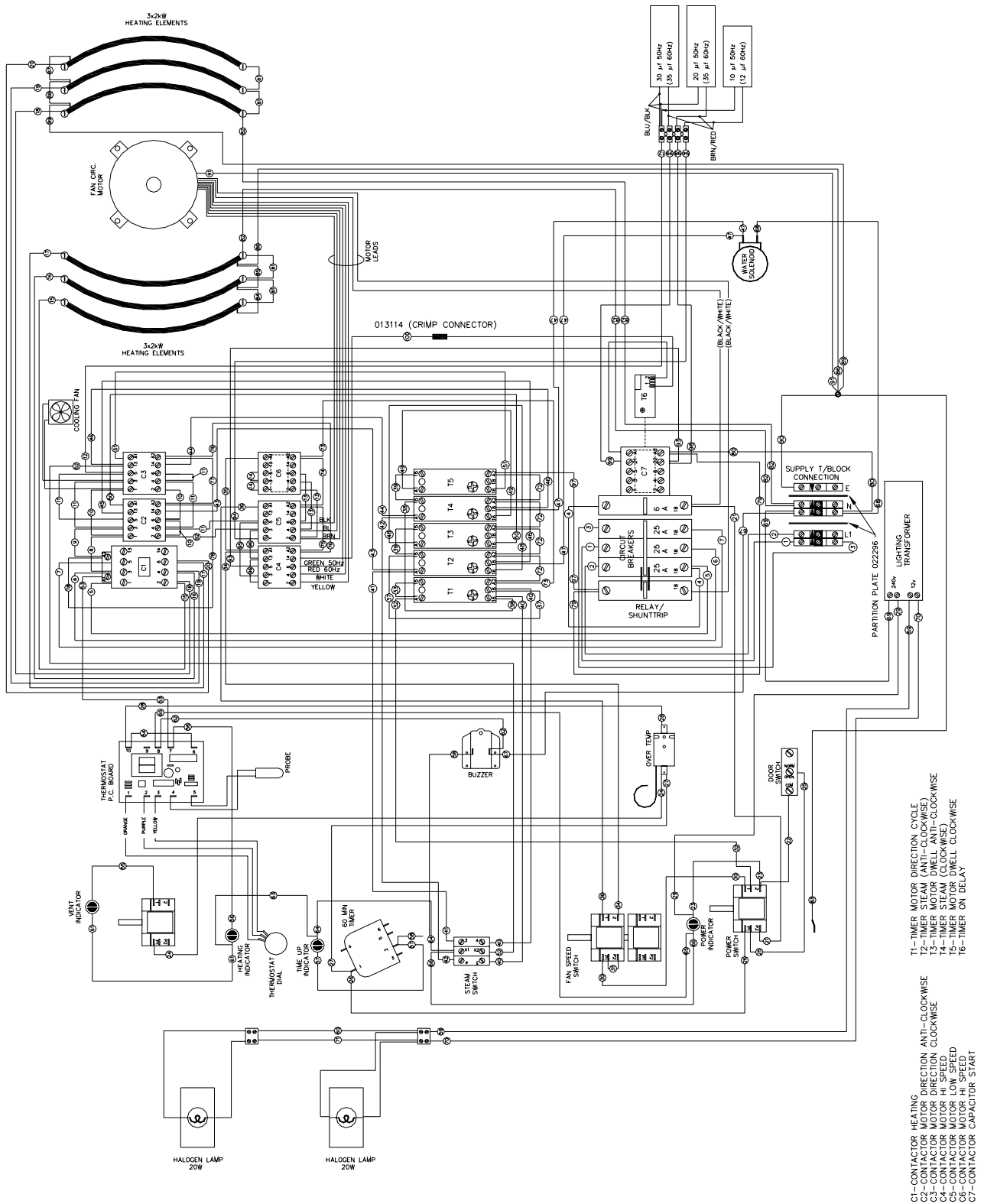
8.1 380-415V, 3P+N+E



8.2 208-240V, 3P+E



8.3 208-240V, 1P+N+E



9. SPARE PARTS

PART NO DESCRIPTION

CONTROL PANEL

| | |
|---------|--|
| 020822 | Power Switch |
| 020849 | Neon Indicator Lights |
| 020985 | Thermostat Potentiometer |
| 011760 | Timer - 60 Min |
| 020893 | Steam Switch Assembly |
| 020882 | Solid State Thermostat |
| 020888 | Fan Speed Switch (Rear half of fan switch assembly) |
| 020822 | Fan Speed Switch (Front half of fan switch assembly) |
| 020883K | Thermostat Probe Kit |
| 020823 | Control Panel Knobs |

GEAR PLATE

| | |
|---------|--|
| 015966 | Heating Contactor 230-240V - 50Hz |
| 020974 | Heating Contactor 208-220V, 50Hz - E35-X253 only |
| 020772 | Heating Contactor 208-240V, 60Hz |
| 020768 | Motor Contactor |
| 020769 | Contactor Interlock (Used on C2 & C3, C5 & C6) |
| 023059 | Timer- Fan Direction (Cycle) |
| 023058 | Timer - Fan Direction (Dwell) / Steam Dose |
| 020770 | Shunt Trip (Vynkier) (50Hz to S/N 230810) |
| 021345 | Shunt Trip (AB) (50Hz from S/N 230811; 60Hz All) |
| 020975 | Circuit Breaker - 3ø 40A (AB) (3ø+E models) |
| 020776 | Circuit Breaker - 3ø 25A (Vynkier) (3ø+N+E models to S/N 230810) |
| 021563 | Circuit Breaker - 3 pole 25A (AB) (3ø+N+E models from S/N 230811; All 1ø+N+E models) |
| 020777 | Circuit Breaker - 1ø 6A (Vynkier) (50Hz to S/N 230810) |
| 021344 | Circuit Breaker - 1ø 6A (AB) (50Hz from S/N 230811; All 60Hz) |
| 020213 | Lighting Transformer |
| 021351 | Oven Lamp Complete |
| 021350 | Light Bulb G4/20W Halogen |
| 021352 | Oven Lamp Glass |
| 021354 | Gasket |
| 019369K | Over Temperature Control Kit |
| 021156 | Cooling Fan |
| 021551 | Capacitor 10µF (1ø models only) - 50Hz |
| 021553 | Capacitor 20µF (1ø models only) - 50 Hz |
| 021554 | Capacitor 30µF (1ø models only) - 50Hz |
| 021552 | Capacitor 12µF (1ø models only) - 60Hz |
| 021555 | Capacitor 35µF (1ø models only) - 60Hz |
| 021560 | Relay 10A (1ø models only) - Motor start capacitor switching |
| 021561 | Relay Socket Base (1ø models only) - Motor start capacitor switching |
| 021562 | Timer on Relay 1-30sec (1ø models only) - Motor start capacitor timing |
| 011794 | Buzzer |

| PART NO | DESCRIPTION |
|---------|-------------|
|---------|-------------|

MOTOR & ELEMENTS

| | |
|--------|---|
| 020745 | Motor - 380-415V 50Hz 3Ø (E35-H453-xx, E35-N453-xx, E35-X353-xx only) |
| 020885 | Motor - 220-240V 50Hz 1Ø/3Ø (E35-H251-xx, E35-X25x-xx only) |
| 020886 | Motor - 208-240V 60Hz 1Ø/3Ø (E35-P26x-xx, E35-T26x-xx, E35-X263-xx only) |
| ----- | Motor Front Bearing - SKF 6204-2Z/C3LHT23 |
| ----- | Motor Rear Bearing - NSK 6203Z |
| 025396 | Fan |
| 020896 | Motor Shaft Seal |
| 020762 | Element - 230-240V 2000W (E35-Hxxx-xx, E35-Nxxx-xx, E35-Txxx-xx only) |
| 020763 | Element - 208-220V 2000W (E35-Pxxx-xx, E35-Xxxx-xx only) |
| 022259 | Element - 208-220V 1250W (E358-Nxxx-xx only) |

STEAM SYSTEM

| | |
|--------|---------------------------|
| 020851 | Water Solenoid Valve |
| 020853 | Spray Adaptor Body |
| 020854 | Spray Nozzle Cap |
| 020819 | Vent Over Pressure Spring |
| 020824 | Vent Gasket |

DOOR

| | |
|---------|---|
| 025043 | Door Seal |
| 020738 | Hinge Bush |
| 020754 | Bolt Catch |
| 020750 | Hinge Mounting Plate Bottom |
| 023050 | Hinge Mounting Plate Top |
| 020753 | Bolting Element |
| 020833 | Door Bolt Connecting Rod |
| 020752 | Handle Gear |
| 020751 | Door Handle |
| 020774 | Microswitch |
| 020766 | Latch Assembly (Hinged glass door only) |
| 020713K | Door Inner Glass (Hinged glass door only) |
| 022308 | Glass Clamp (Hinged glass door only) |
| 021154 | Door Outer Glass Assembly (Hinged glass door only) |
| 024150 | Door Glass Assembly - Complete (Stainless steel door only) (NOTE: Does not include inner and outer seals) |
| 024094 | Door Inner Glass (Stainless steel door only) |
| 024095 | Door Outer Glass (Stainless steel door only) |
| 024104 | Door Inner Glass Seal (Stainless steel door only) |
| 024105 | Door Outer Glass Seal (Stainless steel door only) |
| 024087 | Door Inner Glass Clamp Frame (Stainless steel door only) |

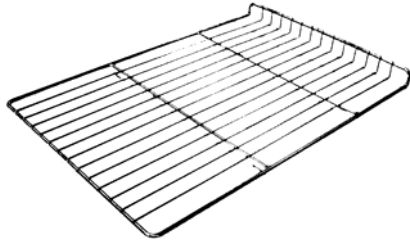
RACKS

| | |
|--------|----------------------------------|
| 020809 | Side Rack 6 Tray LH (26" models) |
| 020810 | Side Rack 6 Tray RH (26" models) |
| 020811 | Side Rack 6 Tray LH (30" models) |
| 020812 | Side Rack 6 Tray RH (30" models) |
| 025089 | Side Rack 8 Tray LH (26" models) |
| 025090 | Side Rack 8 Tray RH (26" models) |
| 023018 | Side Rack 8 Tray LH (30" models) |
| 023019 | Side Rack 8 Tray RH (30" models) |
| 025916 | Side Rack 4 Tray LH (26" models) |
| 025917 | Side Rack 4 Tray RH (26" models) |
| 015168 | Oven Rack (26" models) |
| 020993 | Oven Rack (30" models) |

10. ACCESSORIES

OVEN RACKS

(PART NO 015168 - 26" / 020993 - 30")



100 MM (FOUR INCH) LEG OPTION (PART NO 021348 x4)



150 MM (SIX INCH) LEG OPTION (PART NO 018724 x4)



STAINLESS STEEL DOOR OPTION



Stainless Steel Door Conversion Kit - Part No 024150

DOUBLE STACKING KIT (PART NO 021236 (26") / 021237(30"))

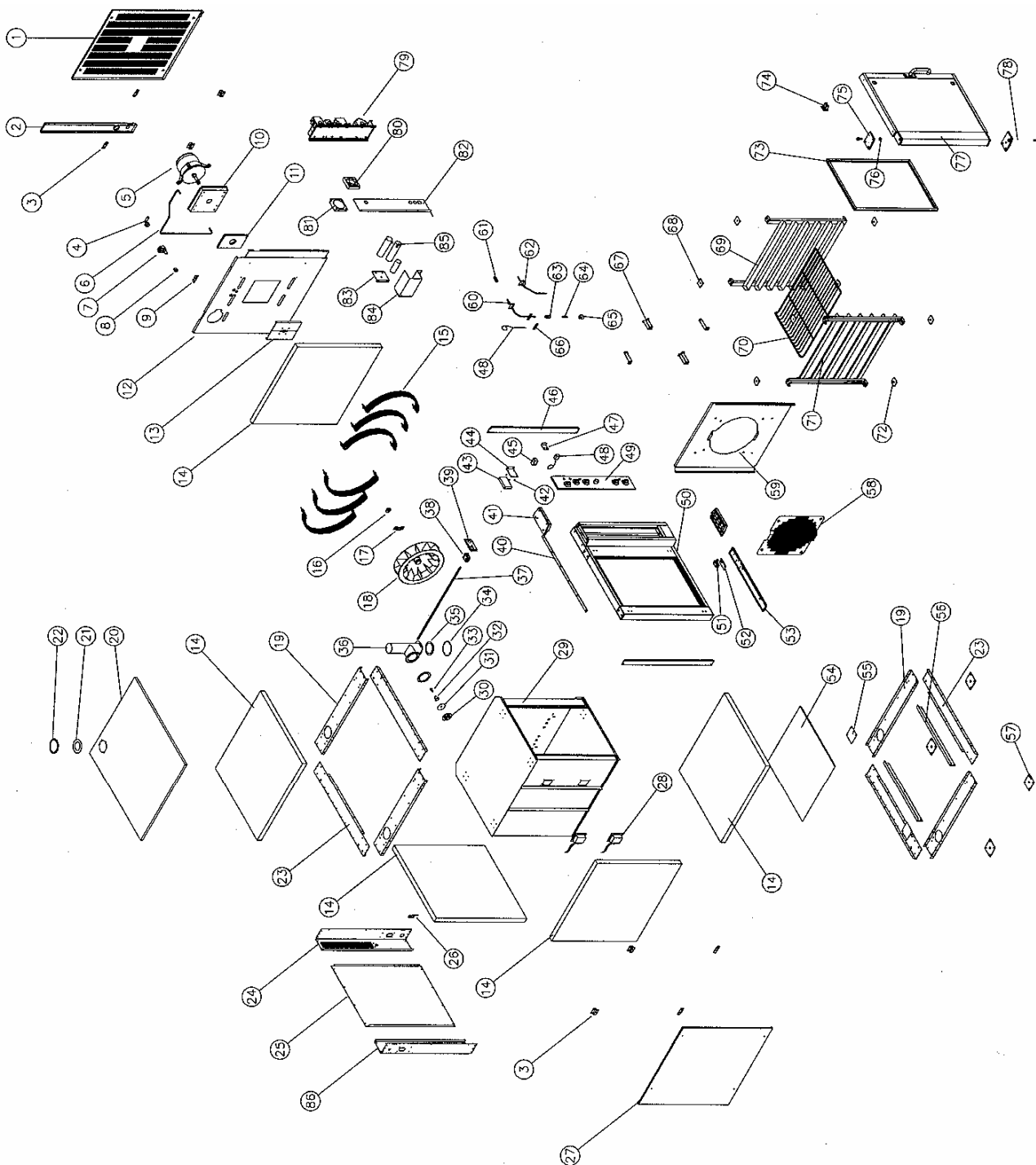


A26 STAINLESS STEEL STAND



11. PARTS DIAGRAMS

11.1.1 MAIN ASSEMBLY

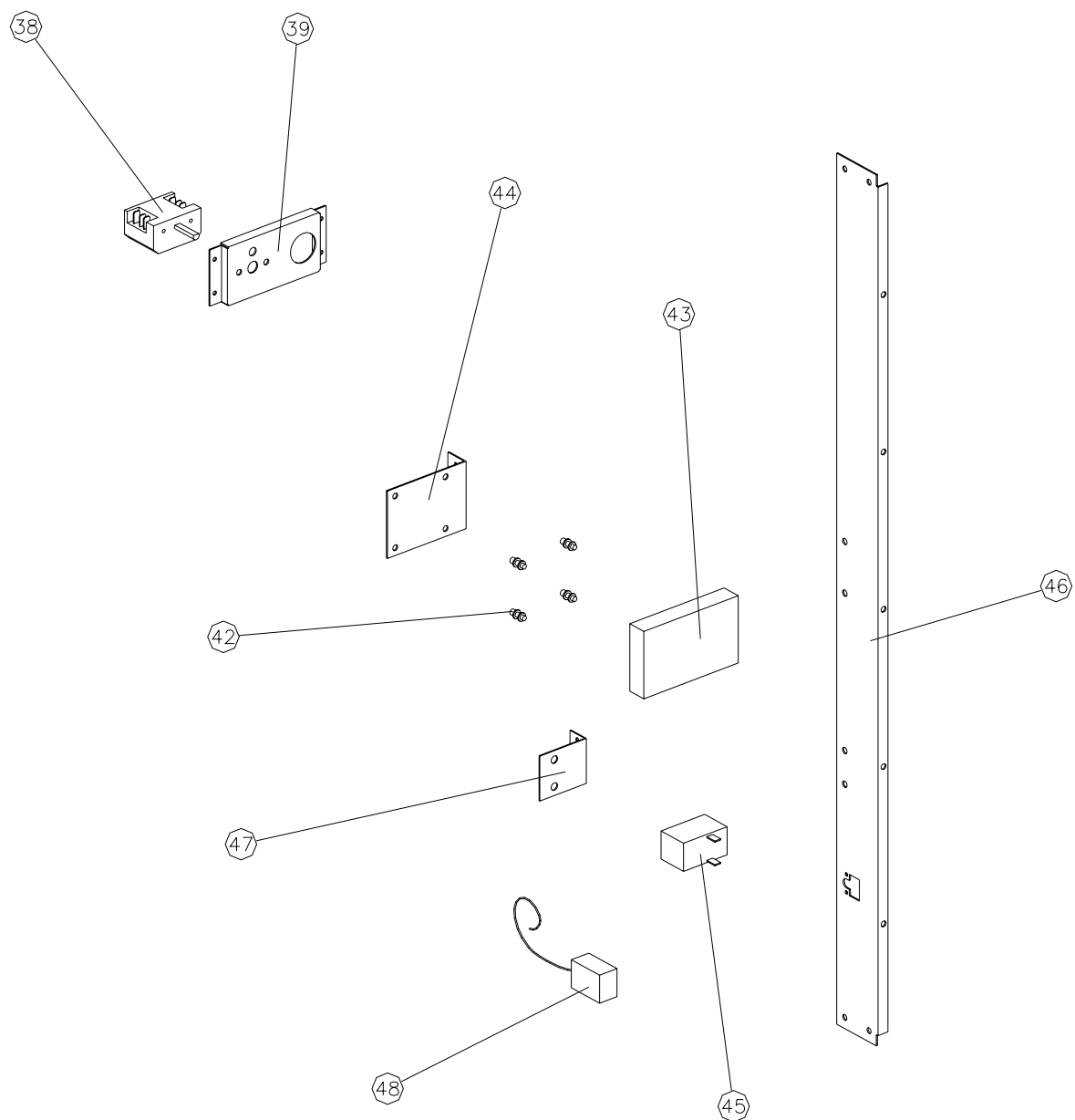


| Pos | Part No. | Description |
|-----|----------|--|
| 1 | 020788 | SIDE PANEL RH (E35-xxx-26 only, to s/n 215839) (Replace with 23971) |
| | 023971 | SIDE PANEL RH (E35-xxx-26 only, from s/n 215840) |
| | 020790 | SIDE PANEL RH (E35-xxx-30 only, to s/n 215839) (Replace with 23972) |
| | 023972 | SIDE PANEL RH (E35-xxx-30 only, from s/n 215840) |
| 2 | 020792 | SERVICE ENTRY PANEL |
| | 019213 | CABLE ENTRY BUSH (Not illustrated - to s/n 205999) |
| 3 | 020785 | PANEL MOUNTING BRACKET |
| 4 | 021526 | WATER INLET ELBOW (Refer 11.1.3) |
| | 021527 | WATER INLET WASHER |
| 5 | 020745 | MOTOR (380-415V 50Hz 3ø) |
| | 020885 | MOTOR (220-240V 50Hz 1ø/3ø) |
| | 020886 | MOTOR (208-240V 60Hz 1ø/3ø) |
| | 025751 | FAN MOTOR HEAT FLINGER |
| 6 | 020860 | WATER SUPPLY TUBE (E35-xxx-26 only) (Refer 11.1.3) |
| | 020862 | WATER SUPPLY TUBE (E35-xxx-30 only) (Refer 11.1.3) |
| 7 | 020851 | WATER SOLENOID (Refer 11.1.3) |
| 8 | 020869 | CONNECTOR - 3/8"F x 1/4" COMPRESSION (Refer 11.1.3) |
| 9 | 020991 | MOUNTING BRACKET (Refer 11.1.3) |
| 10 | 020897 | MOTOR INSULATION PLATE |
| 11 | 020778 | MOTOR MOUNTING PLATE |
| 12 | 020797 | SIDE INSULATION PANEL (E35-xxx-26 only) |
| | 020798 | SIDE INSULATION PANEL (E35-xxx-30 only) |
| 13 | 021160 | OVEN SIDE PLATE |
| 14 | 090416 | FIBREGLASS INSULATION 730x780x38 |
| | 090417 | FIBREGLASS INSULATION 730x880x38 (E35-xxx-30 only) |
| 15 | 020762 | ELEMENT - 220-240V 2000W (H,N,T only) |
| | 020763 | ELEMENT - 208-220V 2000W (P,X only) |
| | 022259 | ELEMENT - 208-220V 1250W (8kW units only - option) |
| | 015292 | SEALING WASHER |
| 16 | 020896 | MOTOR SHAFT SEAL |
| 17 | 020898 | MOTOR SEAL HOUSING |
| 18 | 025396 | FAN |
| 19 | 020780 | CHASSIS HORIZONTAL SIDE (E35-xxx-26 only) |
| | 020786 | CHASSIS HORIZONTAL SIDE (E35-xxx-30 only) |
| 20 | 020795 | TOP COVER (E35-xxx-26 only) |
| | 020796 | TOP COVER (E35-xxx-30 only) |
| 21 | 022425 | VENT SEAL |
| 22 | 022426 | VENT SEAL FLANGE PLATE |
| 23 | 020781 | CHASSIS HORIZONTAL |
| 24 | 023970 | CHASSIS VERTICAL REAR RH |
| 25 | 020791 | BACK PANEL |
| 26 | 020895 | CABLE GUIDE BRACKET |
| 27 | 020787 | SIDE PANEL LH (E35-xxx-26 only) |
| | 020789 | SIDE PANEL LH (E35-xxx-30 only) |
| 28 | 021351 | OVEN LAMP HOLDER & BULB |
| | 021352 | OVEN LAMP - GLASS LENS |
| | 021354 | OVEN LAMP - GASKET |
| | 021350 | OVEN LAMP - BULB G4/20W |
| | 021353 | OVEN LAMP -SUPPORT FRAME |
| 29 | 004703 | OVEN WA - ENAMELLED (E35-xxx-26 only) |
| | 004704 | OVEN WA - ENAMELLED (E35-xxx-30 only) |
| | 020874 | OVEN WA STAINLESS STEEL (E35-xxx-26 only) |
| | 020875 | OVEN WA STAINLESS STEEL (E35-xxx-30 only) |
| 30 | 020828 | VENT FLAP |
| 31 | 020827 | VENT OVER PRESSURE PLATE |
| 32 | 020819 | OVER PRESSURE SPRING |

| | | |
|----|---------|--|
| 33 | 041425 | SCREW - M4 x 6 PAN POZI |
| 34 | 016241 | VENT HOOD |
| 35 | 020824 | VENT GASKET |
| 36 | 020845 | VENT WA |
| 37 | 020821 | VENT OPERATING ROD (E35-xxx-30 only) |
| | 020820 | VENT OPERATING ROD (E35-xxx-26 only) |
| 38 | 020822 | SELECTOR SWITCH (Refer 11.1.2) |
| 39 | 020834 | VENT SWITCH BRACKET (Refer 11.1.2) |
| 40 | 020761 | TOP BUTT STRAP |
| 41 | 020764 | CONTROL HOUSING CAP |
| | 020865 | SCREW CAP - BLACK |
| 42 | 018768 | STAND-OFF (Refer 11.1.2) |
| 43 | 020882 | THERMOSTAT - SOLID STATE (Refer 11.1.2) |
| 44 | 020775 | T/STAT BOARD MOUNTING BRACKET (Refer 11.1.2) |
| 45 | 011794 | BUZZER (Refer 11.1.2) |
| 46 | 020783 | CHASSIS VERTICAL FRONT (Refer 11.1.2) |
| 47 | 014032 | BUZZER MOUNTING BRACKET (Refer 11.1.2) |
| 48 | 019369K | OVERTEMP THERMOSTAT KIT (Refer 11.1.2, 11.1.3) |
| | 013506 | GLAND WASHER |
| | 013507 | GLAND BUSH |
| | 013508 | GLAND NUT |
| | 020887 | SPLIT GLAND NUT ASSY (c/w Split nut, Seal & Washer) |
| | 020892 | GLAND BUSH MOUNTING PLATE |
| 49 | ----- | CONTROL PANEL ASSEMBLY (Refer 11.2) |
| 50 | 020841 | FACIA WA |
| 51 | 020774 | MICROSWITCH |
| 52 | 020829 | MICROSWITCH MOUNTING BRACKET |
| 53 | 020830 | MICROSWITCH COVER PANEL |
| 54 | 020793 | BASE COVER SHEET (E35-xxx-26 only) |
| | 020794 | BASE COVER SHEET (E35-xxx-30 only) |
| 55 | 020899 | BLANKING PLATE |
| 56 | 020784 | OVEN SUPPORT BRACKET |
| 57 | 018723 | LEG PLATE |
| 58 | 020881 | FAN GUARD |
| 59 | 020879 | FAN BAFFLE (E35-xxx-26 only) |
| | 020880 | FAN BAFFLE (E35-xxx-30 only) |
| 60 | 020857 | STEAM TUBE WA (Refer 11.1.3) |
| 61 | 020861 | COMPRESSION UNION 1/4" (Refer 11.1.3) |
| 62 | 020883K | PROBE KIT (Refer 11.1.3) |
| | 020856 | GASKET |
| 63 | 016794 | MALE CONNECTOR (Refer 11.1.3) (From S/N 261985) |
| | 020855 | FEMALE CONNECTOR (Refer 11.1.3) (Up to S/N 261984) |
| 64 | 020852 | CHECK VALVE (Up to S/N 261984) |
| 65 | 020853 | SPRAY BODY - WHIRLJET (Refer 11.1.3) |
| | 020856 | GASKET |
| 66 | 020890 | PROBE SECURING BRACKET (Refer 11.1.3) |
| 67 | 020844 | BAFFLE SPACER WA |
| 68 | 020802 | RACK LOCATION UPPER WA |
| 69 | 020810 | SIDE RACK RH WA (E35-xxx-26 only) |
| | 020812 | SIDE RACK RH WA (E35-xxx-30 only) |
| | 023019 | SIDE RACK 8 TRAY RH WA (E35 - xxx- 30 only) |
| | 025090 | SIDE RACK 8 TRAY RH WA (E35 - xxx- 26 only) |
| | 025917 | SIDE RACK 4 TRAY RH WA (E35 - xxx- 26 only) |
| 70 | 015168 | OVEN RACK (E35-xxx-26 only) |
| | 020993 | OVEN RACK (E35-xxx-30 only) |
| 71 | 020809 | SIDE RACK LH WA (E35-xxx-26 only) |
| | 020811 | SIDE RACK LH WA (E35-xxx-30 only) |
| | 023018 | SIDE RACK 8 TRAY LH WA (E35 - xxx- 30 only) |
| | 025089 | SIDE RACK 8 TRAY LH WA (E35 - xxx- 26 only) |
| | 025916 | SIDE RACK 4 TRAY LH WA (E35 - xxx- 26 only) |

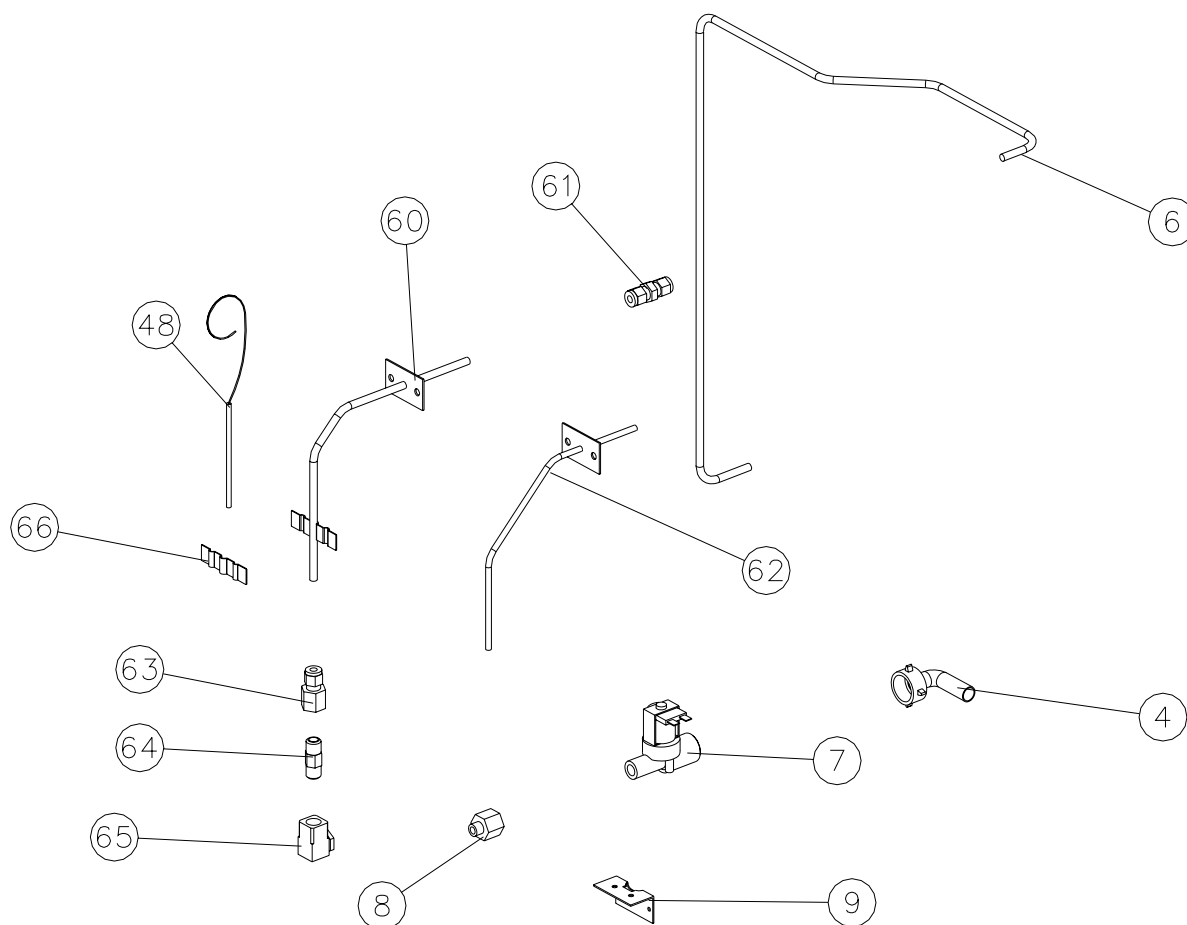
| | | |
|----|--------|---|
| 72 | 020803 | RACK LOCATION LOWER WA |
| 73 | 025043 | DOOR SEAL |
| 74 | 020754 | BOLT CATCH |
| 75 | 023050 | HINGE MOUNTING PLATE TOP (From s/n 206000) |
| | 020737 | HINGE MOUNTING PLATE TOP (To s/n 205999) |
| | 020876 | TOP HINGE BOLT |
| 76 | 020738 | HINGE BUSH |
| 77 | ----- | DOOR ASSEMBLY (Refer 11.4) |
| 78 | 023051 | HINGE MOUNTING PLATE BOTTOM (From s/n 206000) |
| | 020750 | HINGE MOUNTING PLATE BOTTOM (To s/n 205999) |
| 79 | ----- | GEAR PLATE (Refer 11.3) |
| 80 | 021156 | COOLING FAN |
| 81 | 021157 | COOLING FAN BRACKET |
| 82 | 021158 | HEAT BAFFLE |
| 83 | 021388 | CAPACITOR MOUNTING BRACKET (1ø ONLY) |
| 84 | 021389 | CAPACITOR SHIELD (1ø ONLY) |
| 85 | 021551 | CAPACITOR 10uF (H AND X) (50Hz 1ø ONLY) |
| | 021553 | CAPACITOR 20uF (H AND X) (50Hz 1ø ONLY) |
| | 021554 | CAPACITOR 30uF (H AND X) (50Hz 1ø ONLY) |
| | 021552 | CAPACITOR 12uF (P AND T) (60Hz 1ø ONLY) |
| | 021555 | CAPACITOR 35uF (P AND T) (60Hz 1ø ONLY) |
| 86 | 020782 | CHASSIS VERTICAL REAR LH |
| | 021348 | 4" LEG ASSEMBLY (NOT ILLUSTRATED) |
| | 018724 | 6" LEG ASSEMBLY (NOT ILLUSTRATED) |
| | 021236 | 26" OVEN DOUBLE STACKING KIT (NOT ILLUSTRATED) |
| | 021237 | 30" OVEN DOUBLE STACKING KIT (NOT ILLUSTRATED) |

11.1.2 FRONT UPRIGHT CONTROL ASSEMBLY



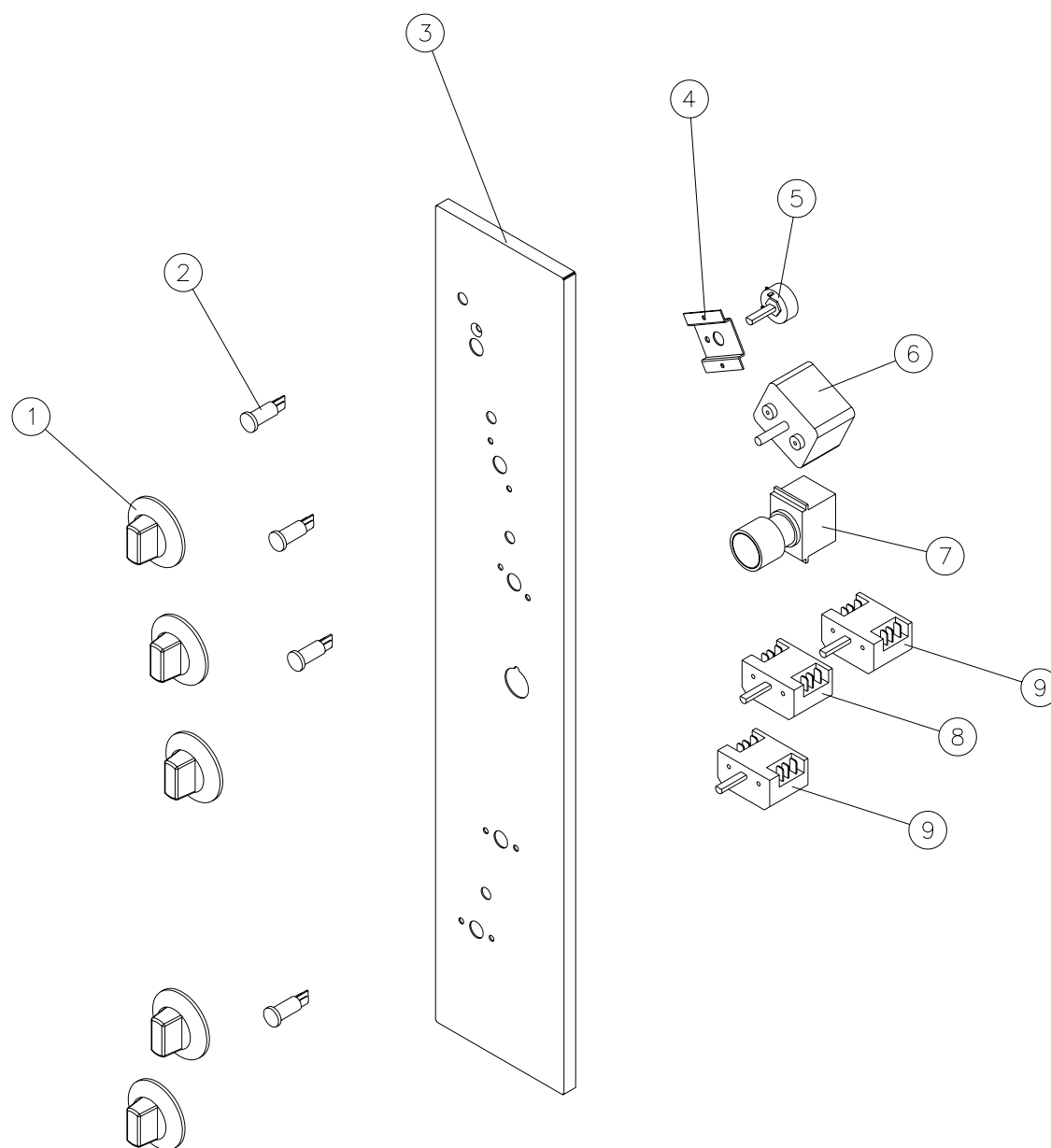
| Pos | Part No. | Description |
|-----|----------|-------------------------------|
| 38 | 020822 | SELECTOR SWITCH |
| 39 | 020834 | VENT SWITCH BRACKET |
| 42 | 018768 | STAND-OFF |
| 43 | 020882 | THERMOSTAT - SOLID STATE |
| 44 | 020775 | T/STAT BOARD MOUNTING BRACKET |
| 45 | 011794 | BUZZER |
| 46 | 020783 | CHASSIS VERTICAL FRONT |
| 47 | 014032 | BUZZER MOUNTING BRACKET |
| 48 | 019369K | OVERTEMP THERMOSTAT KIT |

11.1.3 WATER INJECTION ASSEMBLY



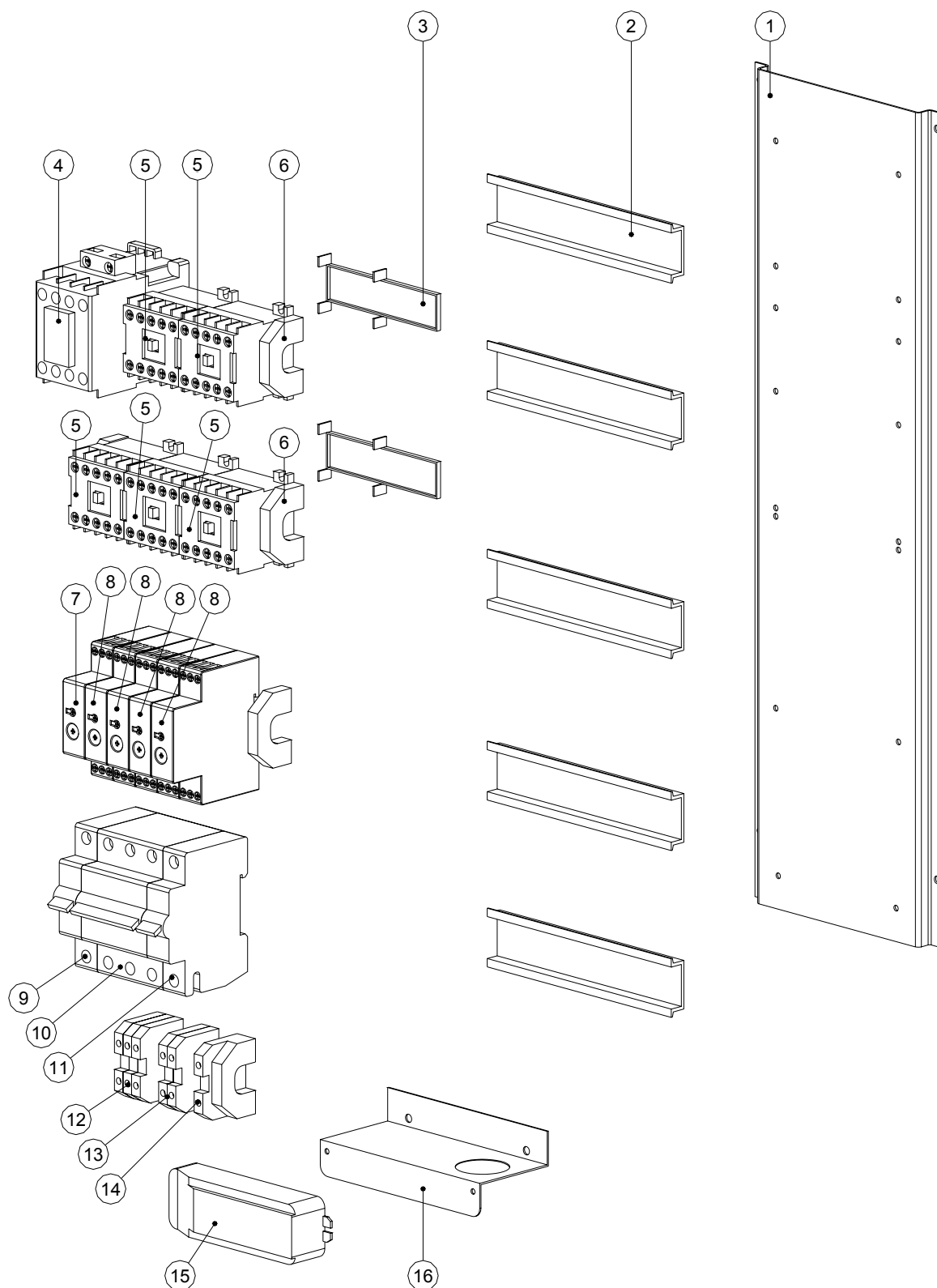
| Pos | Part No. | Description |
|-----|----------|--|
| 4 | 021526 | WASHER INLET ELBOW (c/w WASHER) |
| 6 | 020860 | WATER SUPPLY TUBE (E35-xxx-26 only) |
| | 020862 | WATER SUPPLY TUBE (E35-xxx-30 only) |
| 7 | 020851 | WATER SOLENOID |
| 8 | 020869 | CONNECTOR - $\frac{3}{8}$ "F x $\frac{1}{4}$ " COMPRESSION |
| 9 | 020991 | MOUNTING BRACKET |
| 48 | 019369K | OVERTEMP THERMOSTAT KIT |
| | 013506 | GLAND WASHER |
| | 013507 | GLAND BUSH |
| | 013508 | GLAND NUT |
| | 020887 | SPLIT GLAND NUT ASSY (c/w Split nut, Seal & Washer) |
| | 020892 | GLAND BUSH MOUNTING PLATE |
| 60 | 020857 | STEAM TUBE WA |
| 61 | 020861 | COMPRESSION UNION $\frac{1}{4}$ " |
| 62 | 020883K | PROBE KIT |
| | 020856 | GASKET |
| 63 | 016794 | MALE CONNECTOR (FROM S/N 261985) |
| | 020855 | FEMALE CONNECTOR (TO S/N 261984) |
| 64 | 020852 | CHECK VALVE (TO S/N 261984) |
| 65 | 020853 | SPRAY BODY - WHIRLJET |
| | 020856 | GASKET |
| 66 | 020890 | PROBE SECURING BRACKET |

11.2 CONTROL PANEL ASSEMBLY



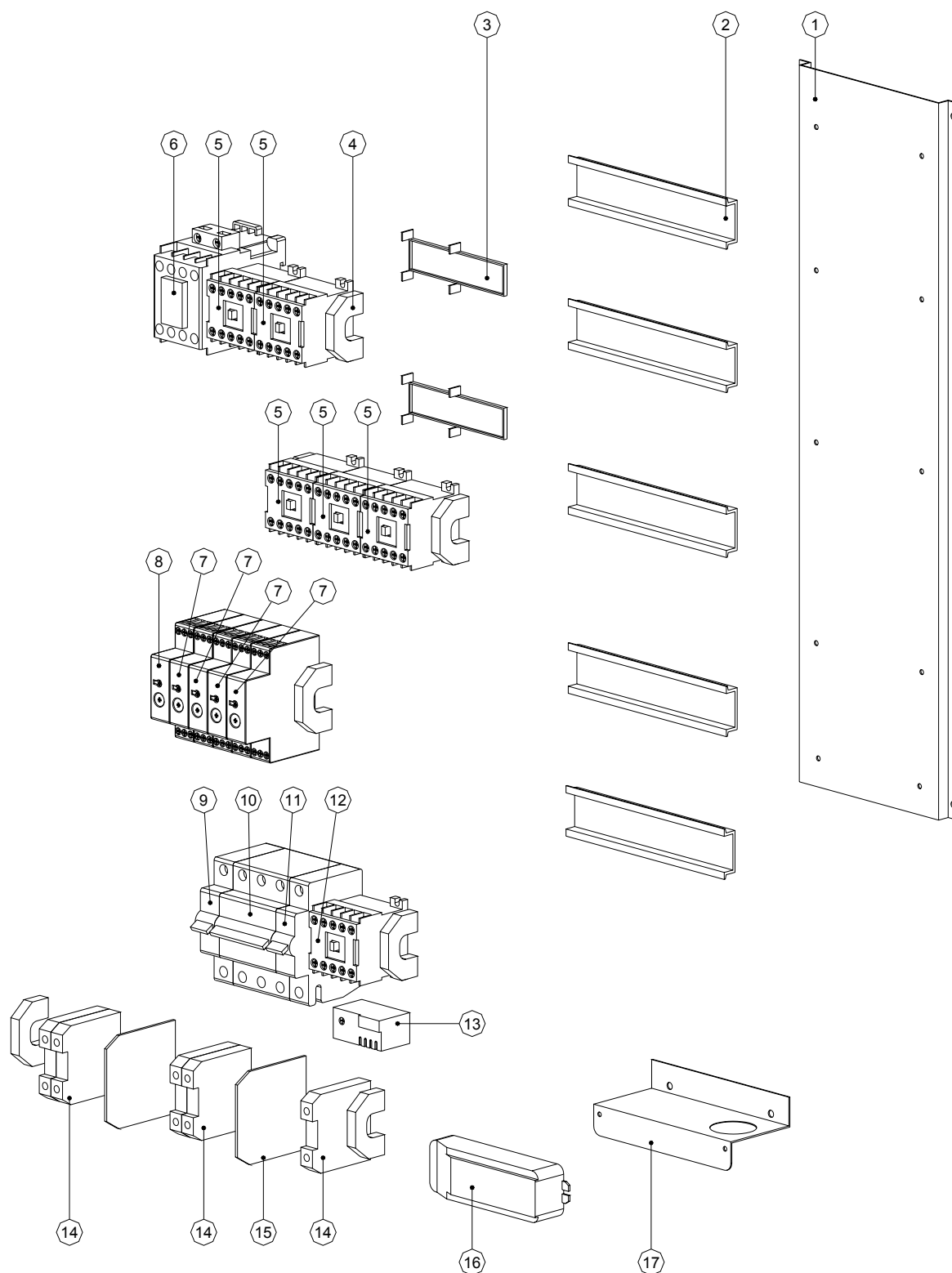
| Pos | Part No. | Description |
|-----|----------|--|
| 1 | 020823 | KNOB (VENT) |
| | 020848 | COMPRESSION RING |
| 2 | 020849 | NEON INDICATOR |
| 3 | 004705 | CONTROL PANEL °F |
| | 004706 | CONTROL PANEL °C |
| 4 | 020976 | POTENTIOMETER BRACKET |
| 5 | 020985 | POTENTIOMETER |
| 6 | 011760 | TIMER - 60 Min |
| 7 | 020893 | STEAM SWITCH ASSEMBLY |
| 8 | 020888 | SELECTOR SW. (FAN SPEED) |
| 9 | 020822 | SELECTOR SWITCH (FAN SPEED & POWER) |

11.3.1 GEAR PLATE ASSEMBLY (3 PHASE MODELS ONLY)



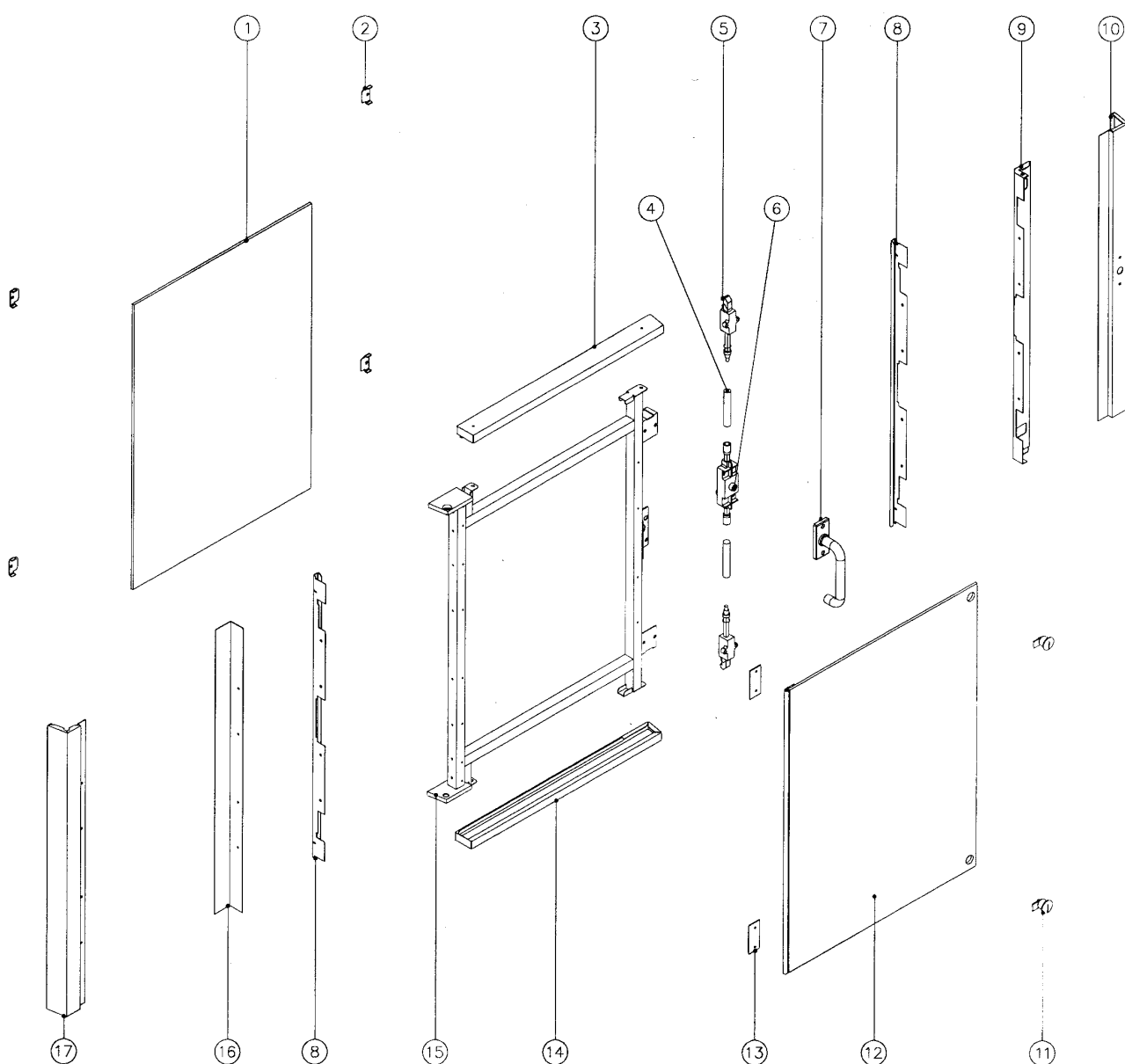
| Pos | Part No. | Description |
|------------|-----------------|---|
| 1 | 020891 | GEAR PLATE |
| 2 | 020990 | DIN RAIL |
| 3 | 020769 | CONTACTOR INTERLOCK (C2&C3 AND C5&C6) |
| 4 | 015966 | HEATING CONTACTOR 50Hz |
| | 020974 | HEATING CONTACTOR 50Hz (X253 ONLY) |
| | 020772 | HEATING CONTACTOR 60Hz |
| 5 | 020768 | MOTOR CONTACTOR |
| 6 | 020995 | END ANCHOR |
| 7 | 020863 | TIMER - FAN DIRECTION (TO S/N 204012) |
| | 023059 | TIMER - FAN DIRECTION (FROM S/N 204013) |
| 8 | 020773 | TIMER - FAN DWELL / STEAM DOSE (TO S/N 204012) |
| | 023058 | TIMER - FAN DWELL / STEAM DOSE (FROM S/N 204013) |
| 9 | 020770 | SHUNT TRIP (VYNKIER) (50Hz TO S/N 230810) |
| | 021345 | SHUNT TRIP (AB) (50Hz FROM S/N 230811; 60Hz ALL) |
| 10 | 020776 | CIRCUIT BREAKER - 3ø 25A (VYNKIER) (TO S/N 230810) |
| | 021563 | CIRCUIT BREAKER - 3ø 25A (AB) (FROM S/N 230811) |
| | 020975 | CIRCUIT BREAKER - 3ø 40A (AB) (263 & 253 UNITS ONLY) |
| 11 | 020777 | CIRCUIT BREAKER - 6A (VYNKIER) (50Hz TO S/N 230810) |
| | 021344 | CIRCUIT BREAKER - 6A (AB) (50Hz FROM S/N 230811; 60Hz ALL) |
| 12 | 025715 | TERMINAL BLOCK - M10 RED (FROM S/N 261183) |
| | 020999 | TERMINAL BLOCK - M6 RED (TO S/N 261182) |
| 13 | 025714 | TERMINAL BLOCK - M10 GREY (FROM S/N 261183) |
| | 020998 | TERMINAL BLOCK - M6 GREY (TO S/N 261182) |
| | 025716 | CENTRE JUMPER - 2 POLE M10 (FROM S/N 261183) |
| | 020996 | CENTRE JUMPER - 2 POLE M6 (TO S/N 261182) |
| 14 | 025713 | TERMINAL BLOCK - M10 GREEN (FROM S/N 261183) |
| | 020997 | TERMINAL BLOCK - M6 GREEN (TO S/N 261182) |
| 15 | 020213 | LIGHTING TRANSFORMER |
| 16 | 021159 | TRANSFORMER BRACKET |

11.3.2 GEAR PLATE ASSEMBLY (1 PHASE MODELS ONLY)



| Pos | Part No. | Description |
|-----|----------|---|
| 1 | 020891 | GEAR PLATE |
| 2 | 020990 | DIN RAIL |
| 3 | 020769 | CONTACTOR INTERLOCK (C2&C3 AND C5&C6) |
| 4 | 020995 | END ANCHOR |
| 5 | 020768 | MOTOR CONTACTOR |
| 6 | 015966 | HEATING CONTACTOR 50Hz |
| | 020772 | HEATING CONTACTOR 60Hz |
| 7 | 020773 | TIMER - FAN DWELL / STEAM DOSE (TO S/N 204013) |
| | 023058 | TIMER - FAN DWELL / STEAM DOSE (FROM S/N 204014) |
| 8 | 020863 | TIMER - FAN DIRECTION (TO S/N 204013) |
| | 023059 | TIMER - FAN DIRECTION (FROM S/N 204014) |
| 9 | 020770 | SHUNT TRIP (VYNKIER) (50Hz TO S/N 230810) |
| | 021345 | SHUNT TRIP (AB) (50Hz FROM S/N 230811; 60Hz ALL) |
| 10 | 020776 | CIRC. BREAKER 3 POLE 25A (VYNKIER) (50Hz TO S/N 230810) |
| | 021563 | CIRC. BREAKER 3 POLE 25A (AB) (50Hz FROM S/N 230811; 60Hz ALL) |
| 11 | 020777 | CIRCUIT BREAKER - 1ø 6A (VYNKIER) (50Hz TO S/N 230810) |
| | 021344 | CIRCUIT BREAKER - 1ø 6A (AB) (50Hz FROM S/N 230810; 60Hz ALL) |
| 12 | 022281 | CONTACTOR (MOTOR START CAPACITOR) |
| 13 | 021562 | TIMER - ON DELAY 1-30 SECOND (MOTOR START CAPACITOR) |
| 14 | 022295 | TERMINAL BLOCK - 16MM GREY |
| | 022297 | CENTRE JUMPER - 2 POLE (NOT ILLUSTRATED) |
| 15 | 022296 | PARTITION PLATE |
| 16 | 020213 | LIGHTING TRANSFORMER |
| 17 | 021159 | TRANSFORMER BRACKET |

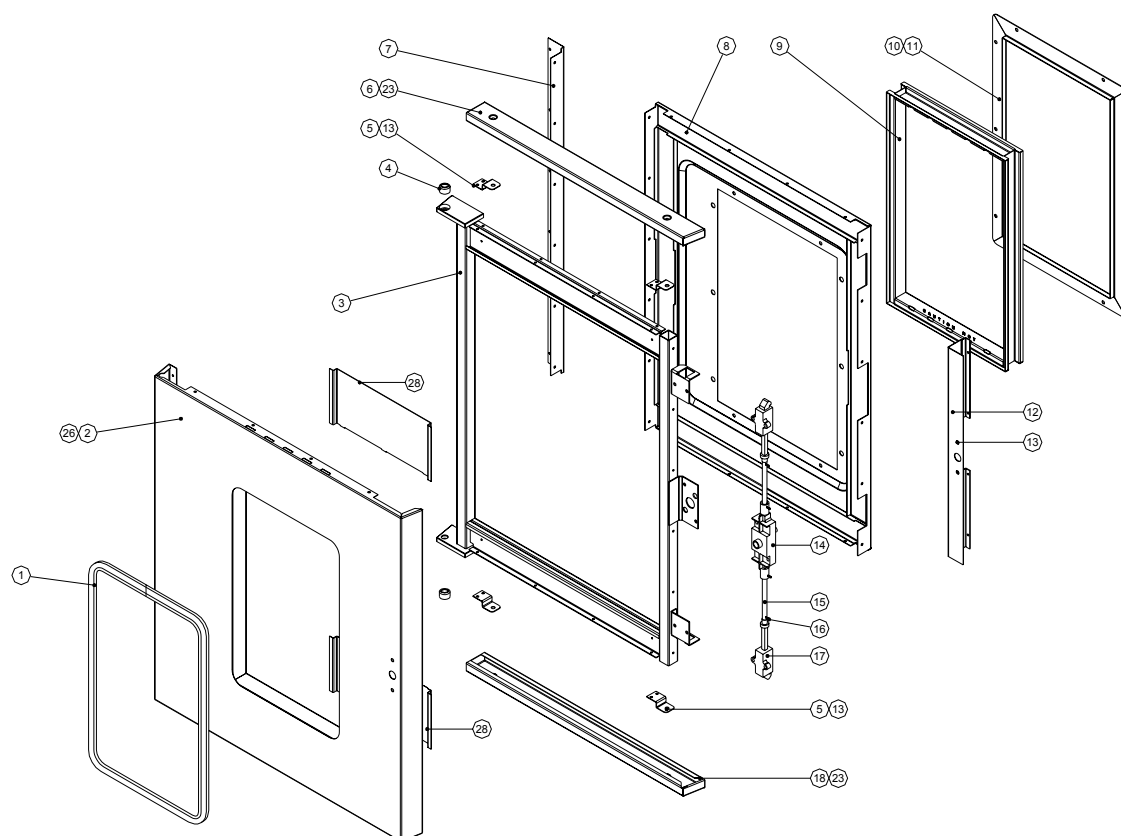
11.4.1 GLASS DOOR ASSEMBLY



| Pos | Part No. | Description |
|-----|----------|---|
| 1 | 020713K | DOOR INNER GLASS |
| | 022314 | GLASS SEAL |
| | 022311 | INNER GLASS UPGRADE KIT (UP TO S/N 39600) |
| 2 | 022308 | GLASS CLAMP |
| 3 | 004715 | DOOR COVER TOP |
| 4 | 020833 | DOOR BOLT CONNECTING ROD |
| | 047308 | SPLIT PIN - 32x3.2 ST/ST |
| 5 | 020753 | BOLTING ELEMENT |
| 6 | 020752 | HANDLE GEAR |
| 7 | 020751 | DOOR HANDLE |
| | 020865 | SCREW CAP - BLACK |
| 8 | 022309 | GLASS SPACER TRIM |
| 9 | 020730 | DOOR TRIM INNER RH |
| 10 | 020731 | DOOR TRIM OUTER RH |
| 11 | 020766 | LATCH ASSEMBLY |

| | | |
|----|--------|---|
| 12 | 021154 | OUTER GLASS HINGED |
| | 090014 | GLASS SEAL - 750mm (INSEAL 10 x 6mm) |
| 13 | 021153 | HINGE SPACER PLATE |
| 14 | 004716 | DOOR COVER BOTTOM |
| 15 | 020725 | DOOR FRAME |
| 16 | 020732 | DOOR TRIM INNER LH |
| 17 | 020733 | DOOR TRIM OUTER LH |
| | SD7031 | COMPLETE DOOR ASSEMBLY |

11.4.2 STAINLESS STEEL DOOR ASSEMBLY



| Pos | Part No. | Description |
|-----|----------|--------------------------------|
| 1 | 024103 | OUTER GLASS SEAL |
| 2 | 024079 | DOOR OUTER PANEL WA |
| 3 | 004892 | DOOR FRAME WA |
| 4 | 020738 | HINGE BUSH |
| 5 | 024098 | COVER SUPPORT BRACKET |
| 6 | 004893 | DOOR COVER TOP |
| 7 | 024099 | DOOR TRIM INNER LH |
| 8 | 024083 | DOOR INNER PANEL WA |
| 9 | 024090 | GLASS MODULE |
| 10 | 024104 | INNER GLASS SEAL |
| 11 | 024087 | GLASS CLAMP WA |
| 12 | 024101 | HANDLE SUPPORT |
| 13 | 047100 | NUTSERT 3/16" |
| 14 | 020752 | HANDLE GEAR RH |
| 15 | 020833 | DOOR BOLT CONNECTING ROD |
| 16 | 047308 | SPLIT PIN 32 x 3.2 |
| 17 | 020753 | BOLTING ELEMENT |
| 18 | 004894 | DOOR COVER BOTTOM |
| 19 | 041409 | SCREW M5 x 25 MUSH SLOT |
| 20 | 045410 | WASHER M5 SPRING |
| 21 | 044017 | NUT M5 HEX |
| 22 | 041045 | SCREW 3/8 x 8 TRUSS |
| 23 | 041436 | SCREW 3/4 x 3/16 SD POZI BLACK |
| 24 | 090005 | SILICONE RTV CLEAR |
| 25 | 090402 | FIBREGLASS |
| 26 | 044206 | NUT SPIRE M5 |
| 27 | 041411 | SCREW M5 x 16 PAN SLT 304 SS |
| 28 | 024242 | WINDOW VENT |

12. SERVICE CONTACTS

AUSTRALIA

VICTORIA - MOFFAT PTY

HEAD OFFICE AND MAIN WAREHOUSE

740 Springvale Road
Mulgrave VIC 3170
Spare Parts Department

Tel (03) 9518 3888
Fax (03) 9518 3838
Free Call 1800 337 963
Fax (03) 9518 3895

NEW SOUTH WALES - MOFFAT PTY

Unit 8/142 James Ruse Drive
Rosehill NSW 2142
Spare Parts

Tel (02) 8833 4111

Free Call 1800 337 963
Fax (03) 9518 3895

QUEENSLAND - MOFFAT PTY

30 Prosperity Place
Geebung QLD 4034
Spare Parts

Tel (07) 3630 8600

Free Call 1800 337 963
Fax (03) 9518 3895

SOUTH AUSTRALIA - MOFFAT PTY

28 Greenhill Rd
Wayville SA 5034
Spare Parts

Tel (08) 8274 2116

Free Call 1800 337 963
Fax (03) 9518 3895

WESTERN AUSTRALIA - MOFFAT PTY

PO Box 689
Joondalup Business Centre WA 6027
Spare Parts

Tel (08) 9305 8855

Free Call 1800 337 963
Fax (03) 9518 3895

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Lessard Agencies Limited
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Stn "D"
Toronto, ONT M6P 3J5

Tel (416) 766 2764
Fax (416) 760 0394
Free Call 1 888 537 7273

NEW ZEALAND

CHRISTCHURCH - MOFFAT LTD

16 Osborne St
PO Box 10-001
Christchurch

Tel (03) 389 1007
Fax (03) 389 1276

UNITED KINGDOM

BLUESEAL LTD
Units 6-7 Mount St Business Park
Mount Street, Nechells
Birmingham B7 5QU
England

Tel 0121 327 5575
Fax 0121 327 9711

UNITED STATES OF AMERICA

MOFFAT INC.
3765 Champion Blvd
Winston-Salem
NC27115

Tel 1800 551 8795
Fax 336 661 9546

**NATIONAL COVERAGE FOR SERVICE OR MAINTENANCE DIAL
FREE CALL 1800 551 8795 (USA ONLY)**

APPENDIX A. STACKING KIT INSTRUCTIONS

A. UNPACKING

Check kit includes correct parts and correct quantities for the kit purchased as listed.

| ITEM | DESCRIPTION | Qty | |
|------|--|-----|------------|
| A | Stand Frame | 2 | Figure A.1 |
| B | Stand side (top) | 2 | |
| C | Clamp plate | 4 | |
| D | Screw - $\frac{3}{4}$ " x $\frac{1}{4}$ " hex hd | 12 | |
| | Washer - $\frac{1}{4}$ " spring | 12 | |
| | Washer - $\frac{1}{4}$ " flat | 12 | Figure A.6 |
| E | Bolting bracket | 4 | |
| F | Screw - 2"x $\frac{3}{4}$ "BSW hex black | 4 | |
| G | Double stack front WA | 1 | |
| H | Double stack back | 1 | |
| I | Double stack side | 2 | Figure A.8 |
| J | Screw- 1"x $\frac{3}{16}$ " raised CSK | 4 | |
| K | Screw - $\frac{3}{4}$ "x $\frac{3}{16}$ "pozi mush | 16 | |
| L | Top sheet | 2 | |
| M | Screw - $\frac{1}{2}$ "x8A pozi mush | 6 | |
| N | Vent extension WA | 1 | Figure A.8 |
| | Vent gasket | 1 | |
| O | Connection sleeve | 1 | |
| P | Hose clamp - 3" | 2 | |
| Q | RTV clear - 150g tube | 1 | |

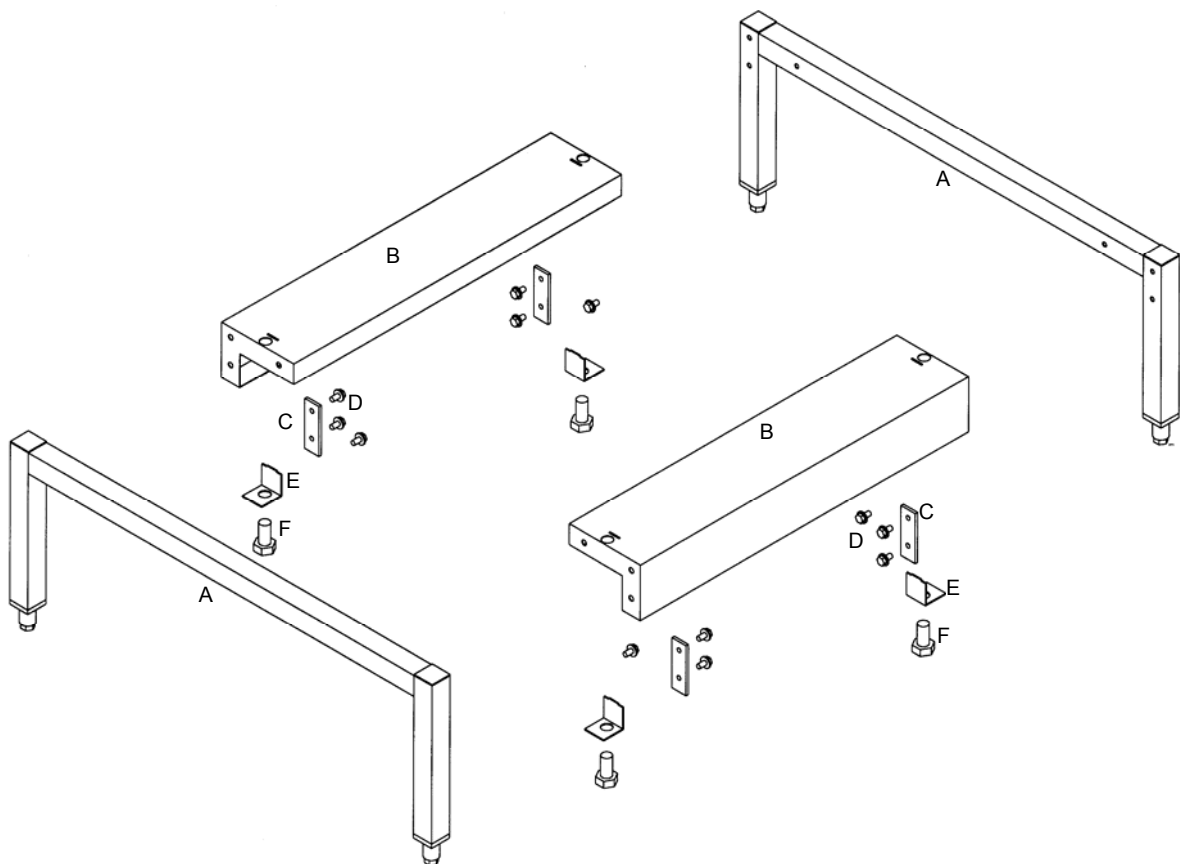


Figure A.1

B. STAND

- 1) Place one stand frame (A) on working surface with threaded holes face up.
- 2) Fit both sides (C), to the stand frame with the screws and washers (E). Ensuring the clamp plates (D) are fitted on the upright sections inside the sides (Figure A.2).
- 3) Place the other stand frame (A) on working surface with threaded holes face up.
- 4) Turn the assembly (as in 1&2 above) over onto the stand frame.
- 5) Secure the sides to the stand frame with the screws and washers (E). Ensuring the clamp plates (D) are fitted on the upright sections inside the sides (Figure A.2).
- 6) Feet are already inserted into the ends of the stand frames.

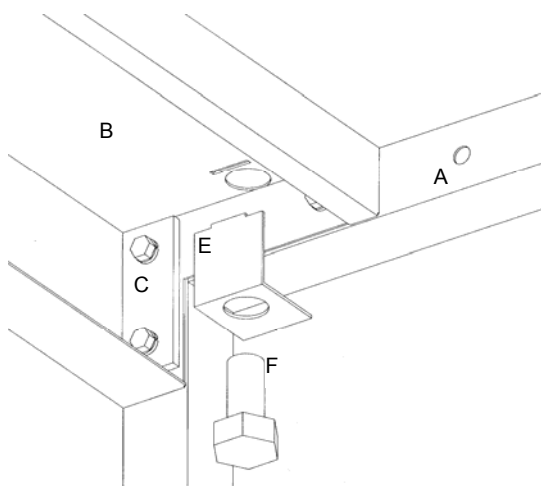


Figure A.2

C. BOTTOM OVEN

Onto Stand

- 1) Remove feet from oven.
- 2) Oven should be placed onto stand with threaded holes in oven's foot plates lining up with holes on stand (at ends of sides B).
- 3) Secure oven using screws (F). It is essential that the Bolting Bracket (E) is correctly in position, refer Figure A.2. Bolt up through mounting bracket and stand into oven foot plate.
- 4) Adjust stand feet to level the oven.

Remove Panels

- 5) Remove side panels from oven, each side panel is held on by 4 screws.
- 6) Remove rear RH side corner panel (power and water entry points), secured with 3 screws at front edge of panel. (Figure A.3)

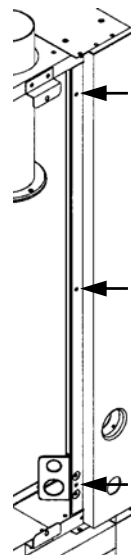


Figure A.3

- 7) Remove the 2 front top side panel support brackets, 2 screws each. (Figure A.4)

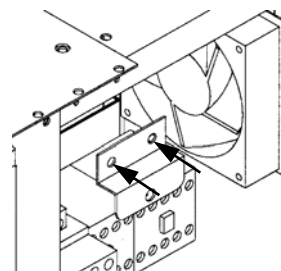


Figure A.4

Stacking Assembly

- 8) Place insulation panels (L) onto oven top (Figure A.5) fitting into the top of the oven to cover the insulation. There are 3 screws (M) down each side to secure the 2 panels.

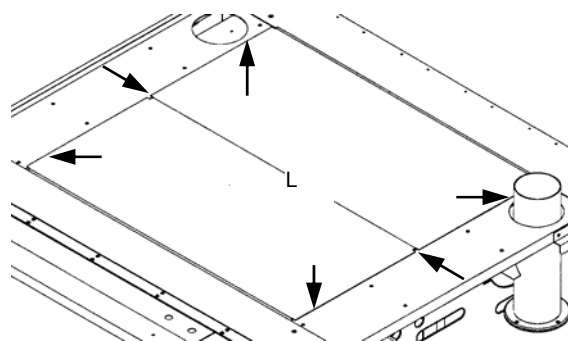


Figure A.5

- 9) Assemble loosely the front (G), back (H) and sides (I), with one screw (J) at each corner (Figure A.6), in from the sides.
- 10) Place stacking assembly on top of the lower oven and loosely attach, using 2 screws (K) in each corner of the unit (at front and back up from the sides).

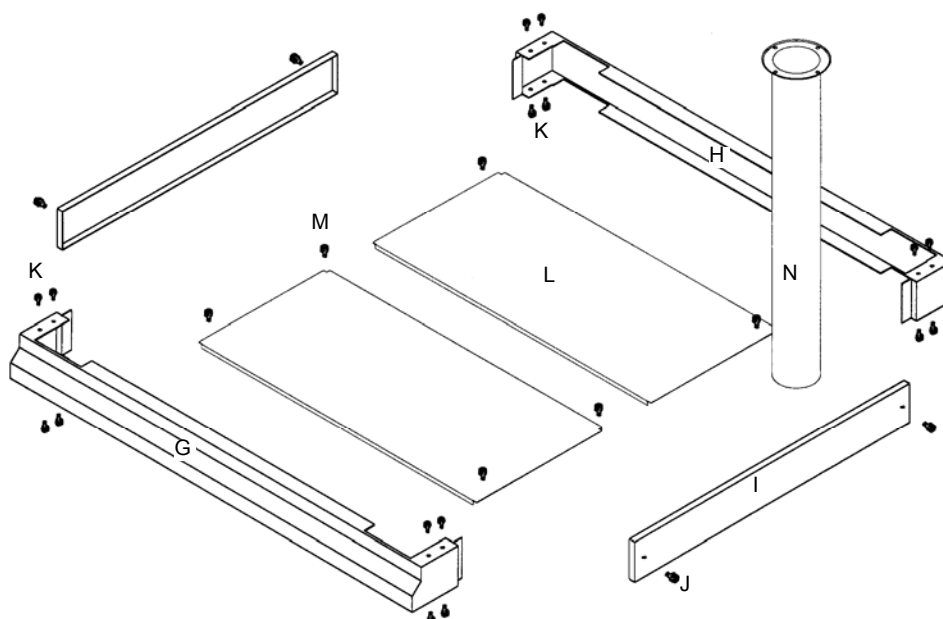


Figure A.6

D. TOP OVEN

Remove Panels

- 1) Remove side panels from oven, each side panel is held on by 4 screws.
- 2) Remove rear RH side corner panel (power and water entry points), secured with 3 screws at front edge of panel (Figure A.3).
- 3) Remove the 2 front bottom side panel support brackets, 2 screws each.

E. STACKING

Stack

- 1) Remove legs / feet from top unit and place onto bottom unit (on stacking assembly) secure using 2 screws (K) in each corner of the unit (at front and back down from the sides).
- 2) Remove the RH double stack side (I).
- 3) Remove vent bottom plate, 4 screws from underneath.
- 4) Secure vent extension (N) with 3 screws (screw closest to oven is inaccessible), using sealant provided (Q) to ensure sealed connection. See Figure A.7.
- 5) Refit the RH double stack side (I).
- 6) Tighten all screws on the stacking assembly.
- 7) Place connection sleeve (O) over join in vent using plenty of sealant (Q) between vent and sleeve, and secure using hose clamps (P). See Figure A.8.

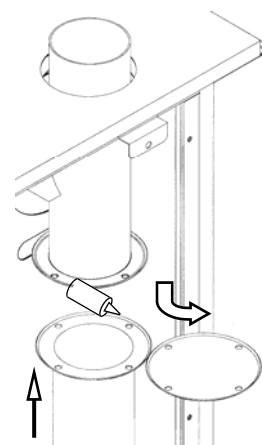


Figure A.7

Re-assembly

- 8) Replace side cover support brackets (Figure A.4) at top front of bottom unit and bottom front of top unit, using original screws.
- 9) Replace rear RH panel (Figure A.3) on each unit using original screws.
- 10) Replace side panels, using original screws.

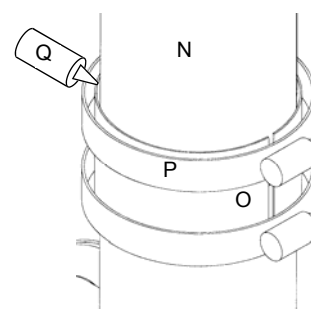


Figure A.8

APPENDIX B. STAND MOUNTING INSTRUCTIONS

A. UNPACKING

Check stand includes correct parts and correct quantities for the stand purchased as listed.

A26C has 'Castor Stem Sockets' in Stand Frames, not feet.

| ITEM | DESCRIPTION | Qty |
|------|---|-----|
| A | Stand frame front (Nutserts one side only) | 1 |
| B | Stand frame rear (Nutserts both sides) | 1 |
| D | Rack | 2 |
| E | Screw - $\frac{3}{4}$ "x $\frac{1}{4}$ " BSW hex hd | 8 |
| E | Washer - $\frac{1}{4}$ " Spring | 8 |
| E | Washer - $\frac{1}{4}$ " Flat | 8 |
| F | Screw - 2 $\frac{1}{4}$ "x $\frac{3}{4}$ " hex hd | 4 |
| | Castor (A26C only) | 2 |
| | Castor braking (A26C only) | 2 |

B. ASSEMBLY (diagram on reverse side)

Stand

- Place front stand frame (A) on working surface with threaded holes and oven supports face up.
- Fit both racks (D) to the stand frames (A).
Take care which holes are used to secure the racks as inside holes in rack uprights (D) are used for 18" (460mm) wide trays, and outside holes are used for 16" (405mm) wide trays.
- Turn assembly upright.

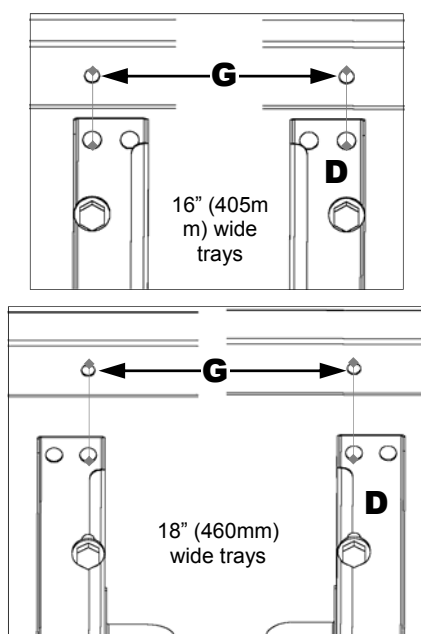


Figure B.1

- Fit the other stand frame (B) with screws and washers (E).

NOTE: Take care which way around the frame is. For 26" oven have the oven supports facing the racks, for 30" oven have the supports (C) facing away from racks (refer figure B.2).

Take care which holes are used to secure the racks, as in 2 above.

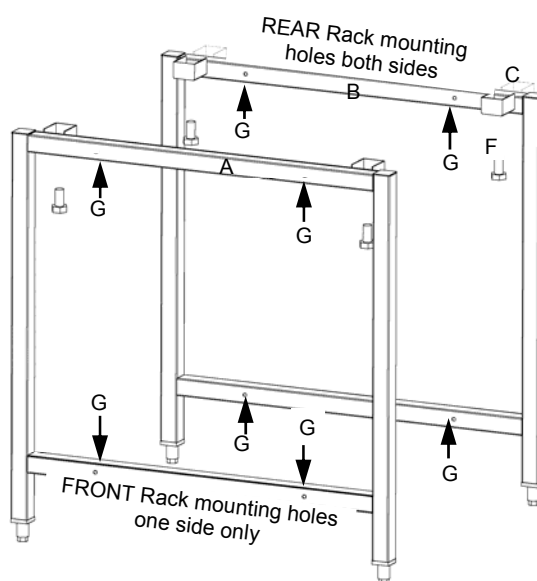


Figure B.2

- A26C only. Insert castors into Stand Frames, ensure 2 braking castors are in front frame. (Front frame has nutserts in one face only)

Oven - mounting on stand

- Remove feet from oven (if fitted).
- Oven should be placed onto stand with threaded holes in oven foot plates lining up with holes in oven supports on stand.
- Secure oven using screws (F).
- A26 only. Adjust stand feet to level the oven.
- A26C only. Ensure braking castors are in front frame.

APPENDIX C. MOTOR CONTROL AND STEAM TIMER ADJUSTMENT GUIDE

FS Series Timers—Settings E35 Convection Oven (Figure C.1)

Note: Superseded by FE series timers—see below.



Figure C.1

| Timer | Type | Function | Time Adjust Setting | Actual Time |
|-------|------|---------------------|---------------------|-------------|
| T1 | FSF3 | Fan motor direction | 0.15 | 1.5 minutes |
| T2 | FSD3 | Steam time | 0.3 | 10 seconds |
| T3 | FSD3 | Fan delay | 0.3 | 10 seconds |
| T4 | FSD3 | Steam time | 0.3 | 10 seconds |
| T5 | FSD3 | Fan delay | 0.3 | 10 seconds |

FE Series Timers—Settings E35 Convection Oven (Figure C.2)

Note: Supersedes FS series timers.

FE series timers interchangeable with earlier FS series timers (above). Time scale settings as per listing below.



Figure C.2

| Timer | Type | Function | Scale Setting | Time Adjust Setting | Actual Time |
|-------|-------|---------------------|---------------|---------------------|-------------|
| T1 | FEF3T | Fan motor direction | 10 minutes | 0.15 | 1.5 minutes |
| T2 | FED3T | Steam time | 10 seconds | 1.0 | 10 seconds |
| T3 | FED3T | Fan delay | 10 seconds | 1.0 | 10 seconds |
| T4 | FED3T | Steam time | 10 seconds | 1.0 | 10 seconds |
| T5 | FED3T | Fan delay | 10 seconds | 1.0 | 10 seconds |

